



CrossTalk

Happy New Year!

January 2025

66 Years Of Service To Amateur Radio & Our Community

Issue 66 : 01

A 2025 Club Officers

President :	Jonathan Pearce, WB2MNF	Trustees - 4 Year Term	
Vice President :	Ronald Block, NR2B	Charles Lanard, KD2EIB	(2022-2025)
Treasurer :	John O'Connell, K2QA	Sheldon Parker, K2MEN	(2023-2026)
Recording Secretary :	John Zaruba Jr, K2ZA	Len Rust, W2LJR	(2024-2027)
Corresponding Secretary :	Michael Resnick, N2WOQ	Earl Moore, KC2NCH	(2025-2028)

Directors - 3 Year Term

Chris Prioli, AD2CS	(2023-2025)	Bill Price, NJ2S	(2024-2026)
James Wright, N2GXJ	(2023-2025)	Jeffrey Garth, WB2ZBN	(2025-2027)
Al Arrison, KB2AYU	(2024-2026)	Frank Romeo, N3PUU	(2025-2027)

General Membership Meeting
Wednesday, January 8, 2025 @ 1900 Hours
In-Person & ZOOM : 943 0211 9674, 843147

License Testing Session
Thursday, January 9, 2025 @ 1900 Hours
W2MMD Clubhouse

Tech Saturday Forum
Saturday, January 11, 2025 @ 0900 Hours
W2MMD Clubhouse

Board of Directors Meeting
Wednesday, January 15, 2025 @ 1900 Hours
W2MMD Clubhouse

GCARC TechNet ZOOM Forum
Monday, January 20, 2025 @ 1930 Hours
ZOOM Meeting ID : 933 9943 3123, 800835

Dinner @ The W2MMD Clubhouse
Wednesday, January 22, 2025 @ 1800 Hours
W2MMD Clubhouse

Tuesday Afternoon 2M Net @ 1200 Hours
Thursday Night 2M Net @ 2000 Hours

Tuesday & Thursday 10 Meter Net @ 1930 Hours
28.465 MHz or 28.475 MHz

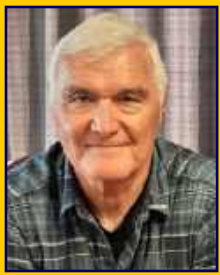
Monday & Thursday Night 40M Net @ 1930 Hours
7.225 MHz (+/- 5 or 10 kHz)

Inside This Issue...

<i>President's Letter.....</i>	<i>Page 3</i>
<i>Welcome New Members</i>	<i>Page 5</i>
<i>January 8th General Membership Meeting</i>	<i>Page 6</i>
<i>Regional Hamfest & Events.....</i>	<i>Page 8</i>
<i>January 11th Tech Saturday Forum</i>	<i>Page 9</i>
<i>Monthly VE Session Summary</i>	<i>Page 10</i>
<i>Promotional Special Ham Classes.....</i>	<i>Page 12</i>
<i>2024 VE Team Yearly Report</i>	<i>Page 13</i>
<i>2024 Club Member Stats</i>	<i>Page 14</i>
<i>DA's & DIT's.....</i>	<i>Page 15</i>
<i>Education Connection.....</i>	<i>Page 16</i>
<i>At The Repair Bench.....</i>	<i>Page 21</i>
<i>ARES SNJ Section Update.....</i>	<i>Page 24</i>
<i>GCARC Remote HF Radio System.....</i>	<i>Page 29</i>
<i>Woodruff School STEM Club Balloon</i>	<i>Page 32</i>
<i>Element 4 Question Quiz</i>	<i>Page 37</i>
<i>K3TS Hustler 5BTV Antenna</i>	<i>Page 39</i>
<i>General Membership Meeting Minutes....</i>	<i>Page 46</i>
<i>Board of Directors Meeting Minutes.....</i>	<i>Page 49</i>
<i>Electronic Tool Tip #12.....</i>	<i>Page 51</i>
<i>DXCC Honor Roll</i>	<i>Page 52</i>
<i>January 2025 Birthdays</i>	<i>Page 53</i>
<i>Club Member Contest Scores.....</i>	<i>Page 54</i>
<i>NG3K Announced DX Operations</i>	<i>Page 56</i>
<i>January 2025 Contest Calendar</i>	<i>Page 57</i>
<i>2025 Club Committees.....</i>	<i>Page 59</i>
<i>Last Page Calendar</i>	<i>Page 60</i>



*For more info on renewing your dues,
Call Jenny @ 867-5309*



President's Letter

Jon Pearce, WB2MNF



January 2025

As we wrap up 2024, it's incredible to reflect on our accomplishments and look ahead to the exciting plans for 2025. December was a busy month, and it set the tone for an even more engaging and innovative year to come.

VHF Station Enhancement

One of our primary focuses for 2025 will be to increase user awareness of the VHF station's capabilities. We are planning a series of educational sessions covering operating procedures, best practices, and hands-on activities to improve our skills and maximize our station's capabilities. To support this initiative, we are looking for presenters or online presentations and publications that can enhance our members' knowledge of VHF operating. These sessions will provide valuable learning opportunities for both new and seasoned operators.

New Technology Group Activities

We are also hoping to introduce new technology group activities. Following the success of the Meshtastic activities in 2024, we plan to explore more cutting-edge projects. This year, we will delve into areas like digital modes, software-defined radios, advanced antenna design, and circuit board design. We encourage members who have an interest or expertise in these areas to join us and share their insights. Collaborative projects will be a cornerstone of our activities, and suggestions for new ventures are always welcome.

Implementing a DMR Repeater

In 2025, we are hoping to implement a MMDVM board on one of our local 440 MHz repeaters to support DMR operations, specifically configured for communication within the Club. The MMDVM board allows the repeater to support many digital modes, including DMR (Digital Mobile Radio). It essentially takes the functionality of a DMR hotspot and adds the range and accessibility of a repeater. To facilitate member communications one time-slot may be dedicated to a Club-based talk group while another may be dedicated to private calling among Club members. Combined with the inexpensive DMR radios that support the Open GD77 firmware, this setup will make repeater monitoring more effective by squelching person-to-person conversations that might be uninteresting to others while making communication among Club members easier. If we can get this set up, there will be Tech Saturday Forum sessions and other opportunities for Club members to learn to use this new resource.

Continuing STEM Activities

Our STEM activities will continue to thrive in 2025, with new additions to engage and inspire students. We aim to create an awareness and interest in technology-related activities, helping students develop confidence in their abilities to perform these activities. By introducing soldering projects and hidden transmitter hunts, we not only encourage students to pursue amateur radio licensing but also prepare them for future studies in technology and engineering fields. Our goal is to foster a lifelong passion for learning and innovation, equipping the next generation with the skills and knowledge they need to succeed in a technology-driven world.

President's Letter - Continued on page 4

Learn the Code

In response to interest from some members, we are considering creating training sessions to help members become proficient in CW (Morse code). These sessions will be designed to teach the fundamentals of CW, providing practice opportunities and tips for effective communication. We hope to inspire a renewed interest in this classic and valuable skill within our Club.

Social Activities

In addition to our technical and educational endeavors, we recognize the importance of social activities to build camaraderie and strengthen our Club community. This year, we plan to have variations on our successful holiday party, bringing everyone together for a festive celebration. Additionally, we are exploring the possibility of hosting a spring picnic, providing an opportunity for members and their families to enjoy a day outdoors, share stories, and bond over shared interests.

Engaging More Members

Our goal is to create a vibrant community of members who are passionate about experimenting with and mastering new technologies. Whether you're a seasoned tech enthusiast or just curious to learn, there's a place for you in these projects. We're looking forward to fostering an environment of learning, sharing, and innovation.

Seeking Member Input

To ensure our activities align with member interests, we encourage you to share your areas of interest with Club leaders. We need your guidance to create relevant and engaging programs. Additionally, members with expertise in specific areas are invited to contribute their knowledge to help develop new activities and projects.

Exciting Plans for 2025

Our plans for the new year are ambitious, and with your participation and enthusiasm, we can achieve even greater heights. From enhancing the VHF station to diving into new technology projects and continuing our STEM activities, there's much to look forward to.

Thank you for being a part of this journey. Together, let's make 2025 a remarkable year for the GCARC.

73 de Jon WB2MNF

PS: If this letter seems slightly different from previous ones it's because it was primarily written by Microsoft Copilot's AI functionality with prompts from me. It's somewhat disconcerting to see a skill that I've felt was reasonably good be eclipsed by a computer, but I must acknowledge that it writes better than I do. So I hope you will enjoy AI's vision of GCARC in 2025!

Welcome New Club Members :

James Archer, N3ZS/5Z4FV, an Amateur Extra Class from Elverson, PA and Kenya.

Ted Coats, ND3Q, an Amateur Extra Class from Philadelphia, PA.

Frank Parsinitz, KD2GSY, a Technician Class from Gibbsboro, NJ.

Jose Velez Jr, KE2EUS, a Technician Class from Vineland, NJ.

We are glad to have you as members of the Club and hope to see you regularly at Club meetings, events, and activities. Hope to see you at the January 8th General Membership Meeting, either in-person or on ZOOM, the January 11th Tech Saturday Forum, the Dinner @ W2MMD Clubhouse on January 22nd, and the Monday Night GCARC TechNet ZOOM Forum.

We also hope to “*SEE*” you on the “*AIR*” on the following nets :

- Sunday Night Skywarn 2 Meter Net @ 1930 Hours.
- Sunday Night ARES 2 Meter Net @ 2000 Hours.
- Tuesday AfterNoon 2 Meter Net @ 1200 Hours.
- Tuesday & Thursday Night 10 Meter Rag Chew Nets @ 1930 Hours on 28.465 or 28.475 MHz.
- Monday & Thursday Night 40 Meter Nets on 7.225 MHz (+/- 5 or 10 kHz) @ 1930 Hours.
- Thursday Night Rag Chew 2 Meter Net @ 2000 Hours.

All 2 Meter nets are on our 147.180 MHz (PL 131.8) repeater or on EchoLink W2MMD-R.

*“Ask not what your Club can do for you,
Ask what you can do for your Club”
- KA2OSV*

ADIF Logs Wanted When Operating As W2MMD @ The Clubhouse

By Jim Wright, N2GXJ - Contact me via e-mail on Club Roster List

It is a common courtesy in ham radio to be able to QSL 2-way contacts made with other hams. We're pretty good about doing this for our field day contacts made each year, but are falling behind in this for contacts we make from the Clubhouse as W2MMD.

So here is the ask :

If you operate from the Clubhouse as W2MMD (e.g. on HF, UHF/VHF, or on Satellite, at Tech Saturday, or during contests or other), please email me the electronic log entries in ADIF format from the logger program you used for those contacts?

That way, just like I do following field day each year, I can get them uploaded to LOTW and to eQSL to offer the courtesy of an electronic QSL to those who make contact with us as W2MMD here in NJ.

Thank you

General Membership Meeting

Wednesday, January 8, 2024 @ 1900 Hours

Pfeiffer Community Center

Simulcast Live Via ZOOM : **Meeting ID : 943 0211 9674; Passcode : 843147**

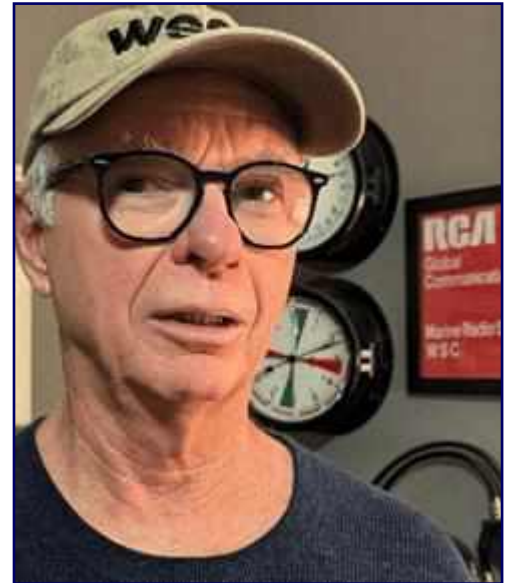
Join ZOOM Meeting Link : <https://bit.ly/44P4HCU>

Go to : www.w2mmd.org to download the ZOOM log-on instructions PDF

Reverse Beacon Network

By Steve McGarry, WS2C

CW Skimmer, developed by **Alex, VE3NEA**, debuted in early 2008 as a DXing tool to monitor pileups efficiently. The software soon sparked controversy among contesters over its use, particularly after telnet capability was added, allowing spots to feed directly into contest logging software. The debate compared its use to DX clusters and whether it constituted "assistance." Around the same time, the **Reverse Beacon Network (RBN)** concept emerged from discussions between **Felipe, PY1NB** and another ham radio enthusiast, building on the DXWatch.com framework to display skimmer spots. As the RBN developed, it faced similar debates about its impact on contesting rules, ultimately being categorized alongside traditional DX clusters for assisted and multi-op contest entries. The RBN continued expanding, enhancing its capabilities with tools like the **Signal Analysis Tool** introduced in 2010.



In this month's presentation, Club member **Steve McGarry, WS2C**, will focus on the RBN and its use :

- Review the reverse beacon concept
- Examine the reverse beacon network RBN blueprint
- Consider components required to assemble a working software defined receiver (SDR) node package for Telnet transmission to the CW reverse beacon network servers
- Deploy RBN spots in station operations through variety of applications including web application DX cluster nodes and common station logging software

This is a bare metal project with a Linux OS. The software transforms the hardware to many devices including but not limited to an SDR transceiver or SDR receiver. Steve will emphasize how the casual operators pursuing DX, laidback contester, and everyday operators can benefit from RBNs and how to deploy this tool at their stations to advance operating goals.

This presentation is not a weighty lecture. The aim is to inform, entertain, and spark interest in the RBN tool and SDRs. The value of this project is that it dovetails with an array of Amateur Radio interests from computers, operating, SDRs, and receive antennas. It presents some unique challenges, for example, the receiver node must exist side by side with a high-power station operation.

Come join us at our monthly membership meeting at 7 PM at the **Pfeiffer Community Center** for this interesting presentation. See you there!



**HAPPY
NEW YEAR
2025**

**Tuesday & Thursday Nights 10M Rag Chew Net @ 1930 Hours
28.465 MHz or 28.475 MHz**



**KEEP
CALM
AND
RENEW YOUR
MEMBERSHIP**

You Can Pay Your Membership Dues Using Cash, Check, Credit Card :

- Pay your dues using our Pay Dues Here webpage
- Bring your money to a General Membership Meeting
- Bring your money to a Tech Saturday Forum
- Bring your money to any Saturday @ The W2MMD Clubhouse
- Bring your money to any Dinner @ The W2MMD Clubhouse
- Send your check in to our PO Box 370

**Gloucester County Amateur Radio Club
PO Box 370, Pitman, NJ 08071**

The membership dues are :

- \$30.00 - Full Membership (Plus an Optional Donation)
- \$15.00 - Family Membership
- \$25.00 - Associate Membership (Plus an Optional Donation)

March 31, 2025 is the deadline to renew your membership dues

Regional (Atlantic & Hudson Divisions) Hamfests & Events

January 04, 2025 : Ham Radio University, ARRL New York City-Long Island Section Convention, LIU-Post College, Hillwood Commons, 720 Northern Boulevard, Brookville, NY. www.hamradiouniversity.org

January 11, 2025 : Skyline Amateur Radio Club, SARC Winter Hamfest, Marathon Civic Center, 16 Brink Street, Marathon, NY. www.skylinehamradioclub.org

January 11, 2025 : Harrisburg Radio Amateurs Club, WinterFest Electronics Expo & Hamfest, Vietnam Veterans Association Building, 8000 Derry Street, Harrisburg, PA. www.w3uu.org

January 26, 2025 : Long Island Mobile Amateur Radio Club, Virtual Hamfest, www.limarc.org

GCARC TechNet ZOOM Forum

Monday, January 20, 2025 @1930 Hours

***Forum Topic : WSJT-X/FT8/LoTW
Training Instructor : Steve Farney, W2SEF***

**Meeting ID : 933 9943 3123 ; Passcode : 800835
Join ZOOM Meeting Link : <https://bit.ly/3K8bWwj>**

GCARC TechNet ZOOM Forum

GCARC TechNet ZOOM Forum is scheduled to be available every Monday Night until December 29, 2025.

There will not necessarily be a topic scheduled every Monday Night, but the opportunity is available to schedule succeeding topics of interest on consecutive Monday Nights.

Every Monday @ 1930 Hours

Date & Forum Topic : See e-mail and website for more information

**Go to : <https://gloucestercountync.weebly.com/gcarc-technet.html>
for TechNet Information Resources and ZOOM Instructions**

**Meeting ID : 933 9943 3123 ; Passcode : 800835
Join ZOOM Meeting Link : <https://bit.ly/3K8bWwj>**



Happy 10th Anniversary

Tech Saturday Forum

January 11, 2025 @ 0900 Hours

W2MMD Clubhouse

Forum Topic :

John Zaruba Jr, K2ZA : Learning Morse Code - Strategies For The Beginner

Q & A Session About All Things Ham Radio and Socializing!

The HF Station Will Be Available For Local Operation!

Tech Saturday sessions are held at the W2MMD Clubhouse on the first Saturday of the month following the Wednesday Night General Membership Meeting and are designed to be hands-on collaborative events focused on using the Clubhouse resources to demonstrate various aspects of Amateur Radio and related technical areas. Previous sessions have covered USB software-defined radios, Raspberry Pi and Arduino devices, satellite operations and other similar topics.

We would like to invite all of our new members as well as our veteran members to our Tech Saturday Forums to help answer any questions and discuss any and all issues the new members have come across as they progress through the *Amateur Radio Experience*.

The Discussion Theme is a QSO starting point - a way to initiate a conversation. All Tech Saturdays are an open QSO of all subjects of Amateur Radio interest. All questions are welcome as well as a venue for hams to show off their latest ham radio projects or gadgets. Have a problem programming that HT, we can help! Not sure what radio or antenna to buy, we can help!

All Club Members who would like Clubhouse access to use its radio equipment would have to have some brief "Elmering" on the Clubhouse rules, such as using the alarm system, the A/C and heaters, the antenna system, and the radio equipment. The Club's HF station is reserved for local use on Tech Saturday.

All are welcome - Hams and Non-Hams - Club Members and Non-Club Members.

Membership Badges Ready For Pick-up.

***They can be picked up at the W2MMD Clubhouse or
at the monthly General Membership Meetings***

Dave Danichkin, KD2UXC

Jim Foster, W3JNF

Deirdre Hebert, AD2GQ

Ronald Jackson, KE2CJB

Bob Jensen, KC3WWL

Ben Johnson, NE2R

Calvin Keller, N2YMS

John McGonigle, KC3ZJX

Jack Snyder, AI2D

GCARC Monthly VE Exam Testing Summary - December 12, 2024

By Chris Prioli, AD2CS

The regular monthly VE session was held on 12 December at the W2MMD Clubhouse. There were three exam candidates, two for the Element 2 exam and one as an upgrade from Element 2 to Element 3. The session was attended by a total of 11 GCARC Volunteer Examiners. The Team Liaison for this session was **Chris Prioli AD2CS**.

The candidates who successfully completed the Element 2 requirements and therefore earned a Technician license were :

- **Jim Bishop, KE2EUD, of Williamstown, NJ**
- **José Velez, KE2EUS, of Vineland, NJ**

The candidate who successfully completed the Element 3 requirements and therefore earned an upgrade to General status was **Chris Angelastro KE2DST** of Cherry Hill, NJ.

Chris was already a GCARC full member, and Jim was an associate member. Jim applied for an upgrade to full member status, and José applied for Club membership as well, both of which requests were granted at the December Board of Directors meeting.

The GCARC VE Team that proctored the exam session included the following Volunteer Examiners:

- **Gary Reed, N2QEE**
- **Mike Resnick, N2WOQ**
- **Rich Subers, W2RHS**
- **Greg Ciraula, K3GC**
- **MaryLu Ciraula, K3MLC**
- **Earl Moore, KC2NCH**
- **Court Smith, KD2SPJ**
- **Mike Thompson, KG4JYA**
- **Lee Marino, N2LAM**
- **Mike Harla, N2MHO**
- **Chris Prioli, AD2CS**

Jerry Barnish, K2EAB was also on site and assisted, though he was unable to participate as a full VE due to a computer software problem with the FCC and the new ExamTools system.

The next regularly-scheduled VE session will be held on 9 January 2025, at 1900 hrs at the Clubhouse, as usual. The VE team will be using the new ExamTools system to its fullest capability, within our current technological means.

It is important to note that all test candidates going forward will be advised, whenever possible, to pre-register and pre-pay for the exam online. Specifics of that process will be forthcoming on the GCARC website as soon as possible.

Monday & Thursday Night 40 Meter Net @ 1930 Hours

7.225 MHz (+ / - 5 or 10 kHz)

NCS : Jim Clark, KA2OSV

Introducing Your 2025 Club Officers!

All the votes were tabulated by the legal firm
Doctor Howard - Doctor Fine - Doctor Howard, Esq.



**President
Jon Pearce
WB2MNF**



**Vice President
Ron Block
NR2B**



**Recording Secretary
John Zaruba Jr, K2ZA**



**Treasurer
John O'Connell
K2QA**



**Director
Jeff Garth
WB2ZBN**



**Corresponding Secretary
Mike Resnick
N2WOQ**



**Director
Frank Romeo
N3PUU**



**Trustee
Earl Moore
KC2NCH**

Promotional Special for Ham Exam Classes

By Chris Prioli, AD2CS

Great news! For the next two sessions of the GCARC Ham Exam Preparation Classes, in celebration of our upcoming 10th session, we are offering a promotional incentive program in the hopes of enrolling some additional students for the sessions.

One of the stumbling blocks that seems to have cropped up lately is attrition in the student body during class sessions. In the last class session, all of the Element 2 (Technician) students had dropped out of the program before completing the job, and therefore did not earn a ham license. I am hoping that I can reverse that trend, and maybe even entice some additional students to sign up, in all Elements.

Towards that end, and for Session IX and Session X only (at this point), GCARC will reimburse the \$15.00 test fee to any student exam candidate who successfully completes the training program and succeeds in passing the exam for the studied element in the first test sitting. The rules are as follows :

1. This promotion is valid only for Session IX (Spring 2025 session) and Session X (Fall 2025 session)
2. To qualify for the exam fee reimbursement, the student must
 - A. Be present for at least eight of the ten classroom meetings
 - B. Actively participate in the classroom training portion of the session
 - C. Successfully pass the FCC exam for the Element studied in the class at the first formal attempt
3. This promotion applies to all Elements
4. Reimbursement is limited to one per individual student exam candidate per session
5. If a student exam candidate chooses to attempt multiple Elements during the same Session with testing events on different dates, only one of the exam fees will be reimbursed upon successful completion
6. If a student exam candidate taking an exam for a given Element passes that exam and then opts to attempt the next Element's exam during the same exam event, reimbursement will be made without regard to the outcome of the additional Element exam attempted
7. Reimbursement will be made via bank check issued by the GCARC Treasurer upon inclusion of the new license status in the FCC ULS database
8. Total reimbursement, which includes any reimbursement from other sources, will in no case exceed the maximum \$15 fee charged for the exam
 - A. In the event of a youthful candidate who receives the ten-dollar fee reimbursement from ARRL, the GCARC reimbursement will be limited to the five-dollar difference between the total exam fee and the ARRL reimbursement

For information regarding scheduled session dates, please refer to the License Classes page on the GCARC website (<https://gloucestercountyarac.weebly.com/license-classes.html>), or to the Educational Connection column in the January 2025 issue of CrossTalk. Answers to any questions that may arise can be had via an e-mail to me at the email address on the GCARC roster.

“Dinner @ The W2MMD Clubhouse”
Wednesday, January 22, 2025 @ 1800 Hours
W2MMD Clubhouse



Gloucester County Amateur Radio Club
YouTube Channel
<https://www.youtube.com/@W2MMD>



2024 VE Team Yearly Report

By Gary Reed, N2QEE

This will be my last VE Report as I have stepped down as the ARRL VEC Liaison. The new VEC Liaison is Chris Prioli, AD2CS.

The liaison's job is to keep the materials required for the VE Exam Testing, enabling the team to have the Exam Elements and all associated materials for the candidates. This includes the current test booklets with 12 test versions for each level and the grading templates for the exams.

A new system for VE Sessions is being introduced in 2025 - Exam Tools. Exam Tools completely computerizes the testing session. The NCVEC 605 form is completed online and payment is done through PayPal. The exams are computer generated and are graded via Photo Scan. After passing the required element(s), the program generates a Certificate of Successful Completion of Examination (CSCE.) At the end of the session, a file is created to submit to the ARRL VEC, who then forwards it to the FCC. The Exam Tools program simplifies the exam session and has been mandated by the ARRL VEC effective with the new Technician Element 2 in July 2026. At that time, the ARRL VEC will no longer produce test booklets.

This year (2024), the VE Team served 63 candidates resulting in 26 Technician, 17 General, and 5 Amateur Extra licenses being granted. There were 36 Element 2's for Technician, 43 Element 3's for General, and 26 Element 4's for Amateur Extra for a total of 100 Exams. The candidates' success rate was 76%.

I'd like to offer a big Thank You to this year's participating Volunteer Examiners. Thanks for your help and your time served!

Need a ride to a Club meeting, event, or activity?

Just send a message to the Club's e-mail reflector asking if a member can pick you up

[GCARC<at>MAILMAN<dot>QTH<dot>NET](mailto:GCARC@MAILMAN.QTH.NET)

All Club members have access to this FREE e-mail service



NTS Resources

The National Traffic System® (NTS) is a network of Amateur Radio operators who move information during disasters and other emergencies. General messages offering well wishes also move through the NTS to help test the system and to help Amateur Radio operators build traffic handling skills. While the NTS is primarily set up to serve the United States and Canada, it is possible to move traffic internationally through the NTS through various local, regional, area, and international network connections.

- ♦ NTS 2.0 : <https://nts2.arrl.org>
- ♦ NTS Manual : <https://www.arrl.org/nts-manual>
- ♦ NTS Methods and Practices Guidelines Table of Contents : <https://www.arrl.org/table-of-contents-nts-methods-and-practices-guidelines>
- ♦ Handling Instructions : <https://nts2.arrl.org/hx-handling-instructions>
- ♦ Numbered Texts : <https://nts2.arrl.org/numbered-texts>
- ♦ Form Encoding Rules for Form : <https://nts2.arrl.org/form-encoding-rules-for-forms>

Club Membership Stats - 2024 Year In Review

We now have 260 members.

130 members used PayPal to renew or join.

We had 71 members join the Club in 2024

A Big THANK YOU to the new and returning members of the class of 2024!

We have 219 Full, 16 Life, 12 Family, 9 Associate, 3 Student, and 1 Honorary Members.

156 of our flock are ARRL members, 22 of which are ARRL Life Members.

49 members have DMR IDs.

We have 46 Technician Class, 82 General Class, 12 Advanced Class, and 109 Amateur Extra Class licensees in our Club.

The average age of our membership is 63 years old. Our youngest is 16 and our oldest 96.

Location Stats :

- The grid square with the most members is 13 from FM29kt and 11 from FM29kr.
- Sewell leads the way as the home of 24 members, Vineland has 18, Williamstown has 11, Woodbury has 10, Bridgeton has 9. Blackwood, Mantua, Mullica Hill, and Sicklerville each have 6 members.
- 40 members live out of state :
 - 17 in Pennsylvania
 - 5 in Delaware
 - 5 in Florida
 - 3 in South Carolina
 - 2 in Ohio
 - 1 each in Alabama, California, Georgia, Maryland, New Hampshire, North Carolina, Texas, and Washington DC
- 2 Members have alternate QTHs : Poland and Kenya

10 Years Ago - January 2015 CrossTalk

Club Membership Stats - 2014 was a very good year!

We now have 128 members. We had 21 new members and 5 returning members join the Club in 2014.

We have 17 Technician Class, 39 General Class, 12 Advanced Class, and 59 Amateur Extra Class licensees in our Club.

We have 114 Full, 4 Family, and 10 Life members in the Club.

DAs and DITs

>> Get well to **Steve Farney, W2SEF's XYL**, recovering from a recent medical issue.

>> Congratulations to **Jim Bishop, KE2EUD**, new Technician Class.

>> Congratulations to **Christopher Angelastro, KE2DST**, for upgrading to General Class.

>> Get well to **WB2ZBN** recovering from knee replacement surgery.

>> Special thanks to **Becky Schoenfeld, W1BXY, ARRL Publications & Editorial Director**, for reaching out to the Club asking permission to reprint **Jim Wright, N2GXJ's** recent article about the "Family Fun Fox Hunt 31. It was published in the **ARRL Club News for December 17, 2024**.

>> **David Wade, KD2NZS**, reports, : A ham friend (**KN6ALV**), and fellow biochemist, in California sent me a link to a recent radio-related article that might be of interest to one or more other GCARC members :

<https://scitechdaily.com/scientists-discover-radio-like-communication-in-ancient-bacteria>

>> Newly elected **ARRL Southern New Jersey Section Manager, Ron Fish, KX1W**, would like SNJ hams to subscribe to a Groups.IO for the SNJ Section : <https://groups.io/g/ARRLSouthernNewJerseySection>

Gloucester County Amateur Radio Club Elmers

We are still looking for some more Club Elmers. If you would to add your name to the Elmer's List, send your specialty to w2mmdgcarc@gmail.com. Here is what we have so far :

- **Tony Starr, K3TS** : Antenna Construction; Contesting; CW Help and Training
- **Ken Bozarth, KN2U** : Antennas
- **Jeff Welsh, KD2AZI** : Boat Anchor Repair & Operation; Raspberry Pi; Arduino; Python; POTA; Mobile Installation & Operating
- **Karl Frank, W2KBF** : Digital Messaging (FLDIGI, WinLink)
- **Lenny Rust, W2LJR** : DMR Radios & Programming
- **Ron Block, NR2B** : Lightning protection & grounding
- **Chris Prioli, AD2CS** : Kit Building; Antenna Building; Radio Programming; PC and Electronic Troubleshooting; Ham Radio Licensing & Studying
- **John Zaruba Jr, K2ZA** : Yaesu System Fusion Radio Programming; POTA; SOTA; CW Learning & Operating
- **Jerry Barnish, K2EAB** : Radio Astronomy
- **Mike Thompson, KG4JYA** : Radio Astronomy; VARA (HF and FM); WinLink
- **Steve Farney, W2SEF** : WSJT-X; FT-8; LoTW; TQSL; Grid Square
- **Carl Wittig, N2CRW** : Audacity® Audio Editor
- **Gary Mirkin, WA3SVW** : FLDIGI; MMSSTV
- **Jon Pearce, WB2MNF** : Satellite Communications
- **Frank Romeo, N3PUU** : Toilet Installer; Jack-Of-All Trades - Master Of None
- **John Hill, W2HUV** : Local & Remote W2MMD HF Station Operation; Training & Support
- **Dave Sheppard, W2PAX** : National Traffic System



The Education Connection

By Chris Prioli, AD2CS - chris@ad2cs.com
www.ad2cs.com



January 2025

It is about that time - time to announce the dates for the GCARC Ham Exam Preparation Class Session IX. That's right - this will be the 9th set of ham exam preparation classes to be held under this program.

My plan is for the program to run through ten weekly classroom sessions with the FCC exam offered during the eleventh week, after all of the classroom training is completed. As has been the custom, depending upon exactly how many students enroll, we may have a single exam session for the Element 2 and Element 3 students (most likely on a Tuesday); the Element 4 students will always be tested separately on a Friday.

The start date for the session is 31 March. See the schedule on the next page.

This schedule provides for completion of the session by the end of June, but it also has some built-in cushion dates in the event of unforeseen need. For example, if the need arises to postpone a given week's class, there is time to add in a make-up session. There is also some time, if needed, to grow an extra week if additional time is called for. Note, however, that the Element 2 schedule only has one "cushion" week instead of the two that Element 3 and Element 4 have. This is because I have not scheduled a class date for Monday, 26 May 2025. According to my calendar, that will be the Memorial Day holiday in 2025, so no class is scheduled that day.

Anyone who is interested in attending a licensing class, please visit the License Classes page of the GCARC website (<https://gloucestercountyarcs.weebly.com/license-classes.html>) and complete the enrollment form found there. Submit the form and I will receive it in my email inbox. Then, go ahead and pay the registration fee of \$35 by submitting that amount to education@w2mmd.org via PayPal. Doing so will hold your seat in the class of your choice.

By the way... look elsewhere in this issue of CrossTalk for a special announcement about a promotional program built around the license exam prep classes.

On another topic, please do not forget about the NanoVNA Exploration classes scheduled to run on 21 January and 23 January at 1800 hrs at the W2MMD Clubhouse. As this is being written, there are still several open seats for that program. Hopefully, they will fill up before the class runs.

See you next month!



www.facebook.com/W2MMD



twitter.com/w2mmd_gcrc



GCARC Ham Exam Preparation Class Schedule
2025 Session IX - Class Times : 1800 - 2100 Hours
Weeks 1 through 10 + Review & VE Testing Week

Class Week	Class Date	License Class Study
Week 1	Monday, March 31, 2025	Technician Class
Week 1	Tuesday, April 1, 2025	General Class
Week 1	Friday, April 4, 2025	Amateur Extra Class
Week 2	Monday, April 7, 2025	Technician Class
Week 2	Tuesday, April 8, 2025	General Class
Week 2	Friday, April 11, 2025	Amateur Extra Class
Week 3	Monday, April 14, 2025	Technician Class
Week 3	Tuesday, April 15, 2025	General Class
Week 3	Friday, April 18, 2025	Amateur Extra Class
Week 4	Monday, April 21, 2025	Technician Class
Week 4	Tuesday, April 22, 2025	General Class
Week 4	Friday, April 25, 2025	Amateur Extra Class
Week 5	Monday, April 28, 2025	Technician Class
Week 5	Tuesday, April 29, 2025	General Class
Week 5	Friday, May 2, 2025	Amateur Extra Class
Week 6	Monday, May 5, 2025	Technician Class
Week 6	Tuesday, May 6, 2025	General Class
Week 6	Friday, May 9, 2025	Amateur Extra Class
Week 7	Monday, May 12, 2025	Technician Class
Week 7	Tuesday, May 13, 2025	General Class
Week 7	Friday, May 16, 2025	Amateur Extra Class
Week 8	Monday, May 19, 2025	Technician Class
Week 8	Tuesday, May 20, 2025	General Class
Week 8	Friday, May 23, 2025	Amateur Extra Class
Week Nine	Monday, June 2, 2025	Technician Class
Week Nine	Tuesday, May 27, 2025	General Class
Week Nine	Friday, May 30, 2025	Amateur Extra Class
Week 10	Monday, June 9, 2025	Technician Class
Week 10	Tuesday, June 3, 2025	General Class
Week 10	Friday, June 6, 2025	Amateur Extra Class
Review & Exam Week	Monday, June 16, 2025	Technician Class
Review & Exam Week	Tuesday, June 10, 2025	General Class
Review & Exam Week	Friday, June 13, 2025	Amateur Extra Class

Unclaimed Property

By John O'Connell, K2QA

My parents had a habit of putting checks aside and forgetting to cash them. I've misplaced a few myself over the years. Or maybe a bank account went dormant.

So, I periodically search the New Jersey Unclaimed Property website for funds that have passed to the state. I have recovered funds for both myself and for my parent's estates. Another claim popped up this week, so I thought I would make sure everyone is aware of this service. Making a claim is straightforward and can be done online.

I recommend you search for yourself and family members at least twice a year. Go to <https://www.nj.gov/treasury/unclaimed-property> and click on 'Search for Unclaimed Property'.

You should search every state you have lived in. See <https://unclaimed.org/search> for links to other state's websites.

Happy hunting.

NJ Treasury



Unclaimed Property Administration

UPA

About

Claims

Holder Reporting

Contact Us



NanoVNA Exploration Class

W2MMD Clubhouse

Meeting 1 : Tuesday, January 21, 2025

Meeting 2 : Thursday, January 23, 2025

1800 to 2100 Hours

Class Fee : \$15.00

Please make your PayPal payment to
EDUCATION @ W2MMD.ORG

You can also pay at any Saturday @ The Clubhouse

More Information at :

<https://gloucestercountyarcc.weebly.com/nanovna-exploration.html>



Tuesday Afternoon Net @ 1200 Hours



Net Control Stations :

**Steve Farney, W2SEF; Rich Subers, W2RHS,
Greg Ciraula, K3GC; & Jeff Garth, WB2ZBN**

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks

**Greg Ciraula, K3GC : January 7, 2025
Steve Farney, W2SEF : January 14, 2025
Rich Subers, W2RHS : January 21, 2025
Jeff Garth, WB2ZBN : January 28, 2025**

**Greg Ciraula, K3GC : February 4, 2025
Steve Farney, W2SEF : February 11, 2025
Rich Subers, W2RHS : February 18, 2025
Jeff Garth, WB2ZBN : February 25, 2025**

**Greg Ciraula, K3GC : March 4, 2025
Steve Farney, W2SEF : March 11, 2025
Rich Subers, W2RHS : March 18, 2025
Jeff Garth, WB2ZBN : March 25, 2025**

**Greg Ciraula, K3GC : April 1, 2025
Steve Farney, W2SEF : April 8, 2025
Rich Subers, W2RHS : April 15, 2025
Jeff Garth, WB2ZBN : April 22, 2025
Steve Farney, W2SEF : April 29, 2025**

If you would like to be a Net Control Station for this net, please contact Steve Farney, W2SEF



Thursday Night Rag Chew Net @ 2000 Hours



Net Control Stations :

**Mary Delemarre, W2TDS; Gary Mirkin, WA3SVW;
Steve Farney, W2SEF; & Jeff Garth, WB2ZBN**

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks :

**Jeff Garth, WB2ZBN : January 2, 2025
Mary Delemarre, W2TDS : January 9, 2025
Gary Mirkin, WA3SVW : January 16, 2025
Steve Farney, W2SEF : January 23, 2025
Jeff Garth, WB2ZBN : January 30, 2025**

**Steve Farney, W2SEF : February 6, 2025
Mary Delemarre, W2TDS : February 13, 2025
Gary Mirkin, WA3SVW : February 20, 2025
Steve Farney, W2SEF : February 27, 2025**

**Jeff Garth, WB2ZBN : March 6, 2025
Mary Delemarre, W2TDS : March 13, 2025
Gary Mirkin, WA3SVW : March 20, 2025
Steve Farney, W2SEF : March 27, 2025**

**Jeff Garth, WB2ZBN : April 3, 2025
Mary Delemarre, W2TDS : April 10, 2025
Gary Mirkin, WA3SVW : April 17, 2025
Steve Farney, W2SEF : April 24, 2025
Jeff Garth, WB2ZBN : May 1, 2025**

If you would like to be a Net Control Station for this net, please contact Jeff Garth, WB2ZBN



Gloucester County Skywarn Net

The Gloucester County Skywarn Net is held every Sunday @ 1930 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All Are Welcome To Participate

Net Control Stations : Steve Bromhead KB2RTZ, Charlie Wahl, KC2STO, & Jeff Garth WB2ZBN



Gloucester County ARES Net

The Gloucester County ARES Net is held every Sunday @ 2000 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All are welcome to participate

Net Control Stations :

Steve Farney W2SEF, Bob Keogh KD2NEC, Karl Frank W2KBF,
Al Arrison KB2AYU, Gary Mirkin WA3SVW, Greg Ciraula, K3GC & Todd Woodward
KD2ESH

Steve Farney W2SEF : January 5, 2025	Todd Woodward KD2ESH : February 2, 2025
Karl Frank W2KBF : January 12, 2025	Bob Keogh KD2NEC : February 9, 2025
Al Arrison KB2AYU : January 19, 2025	Steve Farney W2SEF : February 16, 2025
Gary Mirkin WA3SVW : January 26, 2025	Greg Ciraula, K3GC : February 23, 2025

Anyone who is interested in joining the Gloucester County ARES Team, is invited to contact
Bob Keogh at KD2NEC @ QSL.NET



ARRL Learning Center

<https://learn.arrl.org>

Discover how to make Amateur Radio your own.

Online courses from the ARRL Learning Center provide ARRL members with additional instruction and training for getting on the air, emergency communications, and electronics and technology

Current Website Updates : Go to this page to find out the latest changes & updates on our W2MMD Website

<https://gloucestercountyarcs.weebly.com/current-website-updates.html>



At The Repair Bench...

A monthly column describing a recent repair bench event.

By Chris Prioli, AD2CS - chris@ad2cs.com - www.ad2cs.com

Icom IC-746 PRO – January 2025

Recently, I wrote about the repair of an Icom IC-756 PRO, wherein I replaced the VFO encoder. I had no sooner returned that radio to its owner when that individual presented me with another radio for repair. This time, it was an **Icom IC-746 PRO (Figure 1)**, and the failure was in the realm of a lack of output signal from the radio as a whole.

The IC-746 PRO is a 160m to 6m plus 2m all-mode transceiver. When tested for output, it was found that the transmit power was nil on all bands and in all modes. The internet is full of stories about such or similar failures on this family of Icom transceivers. There are some similarities among these web reports, with the most common cause being related to the failure of a component identified by Icom as **IC151** and referenced in the Service Manual as the wide-band **YGR Amplifier**. The conventional wisdom holds that this IC, which is an MMIC device, typically fails due to excessive heat being experienced by the IC. Investigation of this unit showed that the failures in this case went beyond the YGR amplifier, and affected the pre-driver transistor and both driver transistors.

The YGR amplifier, as already mentioned, is a surface-mount MMIC device carrying a part number of **μPC1678G (Figure 2)**. The pre-driver is a silicon NPN power transistor in a TO-220 case. This transistor, a type 2SC1971, is obsolete and is **extremely** difficult to find. Fortunately, there is a suitable replacement still available, though in very limited quantities. The NTE-342 transistor is a good match and will serve nicely in place of the original 2SC1971 transistor. One of the factors that makes for difficulty in finding a suitable replacement for the 2SC1971 is not the operating voltages of the device; instead, it is the fact that this device has an unusual physical arrangement in that the center pin and tab are emitter-connected rather than the much more common collector-connected tab arrangement.

The driver transistors are a pair of 2SK2975 surface-mount N-channel enhancement-mode power MOSFET's. These transistors are mounted to a small daughter board that is equipped with a large heat-sinking metal base, directly to which the **source** connection is made through holes in the daughter board. The **gate** and **drain** connections are made to SMT pads on the top side of this board. We will discuss replacement of these transistors a bit more later on.

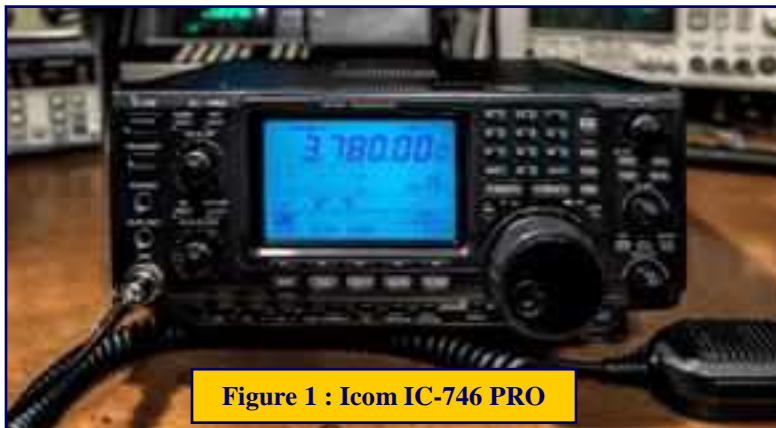


Figure 1 : Icom IC-746 PRO

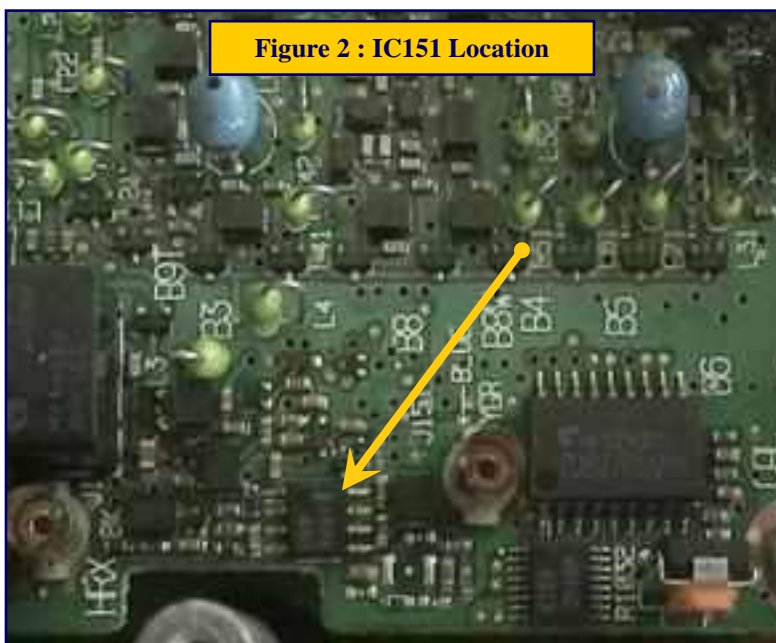


Figure 2 : IC151 Location

At The Repair Bench - Continued on page 22

Replacement of the YGR amplifier IC is best done with the board on which it is installed having been removed from the chassis. This is the board identified by Icom as the **RF Unit**, and the IC is installed in the vicinity of the mounting hole identified as Hole 4, near one corner of the board.

Removal of this IC is most easily done simply by first cutting two three-eighths-inch-long pieces of bare 22 AWG wire. Lay each of these wire lengths across the IC leads on each side of the device, and solder them freely to the leads. Then, apply the heat of the soldering iron to the wire lengths, one at a time, and heat the wire until the solder all along the wire has melted. At that point, gently lift that side of the IC using the tip of a pick or a fine tweezer. Lift it carefully, and just enough to keep it free of the solder puddle. Repeat the heat-and-lift operation on the opposite side of the IC, and the part will be free. Clean up the pads with some solder wick and then with some 99.9% isopropyl alcohol (IPA). After the clean-up is done, tin the pads lightly with some fresh solder, in preparation for the placement of the new IC. This removal method is a useful trick for removing many multi-pin devices from a PCB, and can be used with a wide variety of device types.

After installation of the new IC, a solid copper machined heatsink was attached to the **IC (Figure 3)** to protect it against heat during future operation of the radio.

Next to be replaced was the **Pre-driver Transistor (Figure 4)**. This was a straight-forward component replacement, except that in this installation, the transistor leads are not passed through the PCB, but instead are clipped short and are soldered to pads on the PCB top surface. The mounting tab of this transistor is secured directly to the radio chassis through a hole in the PCB, a design feature intended to remove heat from the transistor. However, as the chassis is beneath the transistor and heat naturally moves upward, the cooling efficiency is not as great as it could be. To that end, a heatsink identical to the one installed to the YGR amplifier IC was installed to the body of the **Pre-driver Transistor (Figure 5)** after the new transistor was installed.

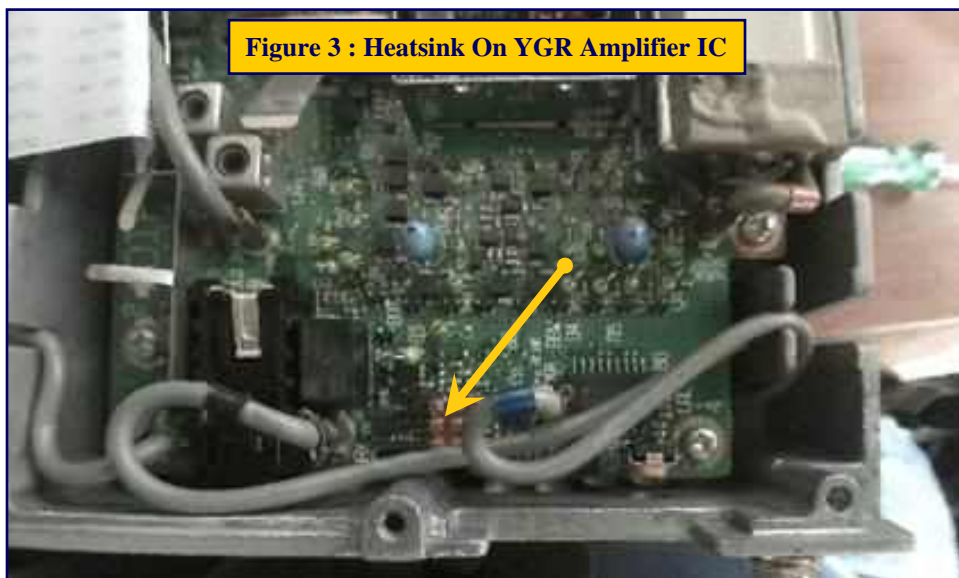


Figure 3 : Heatsink On YGR Amplifier IC

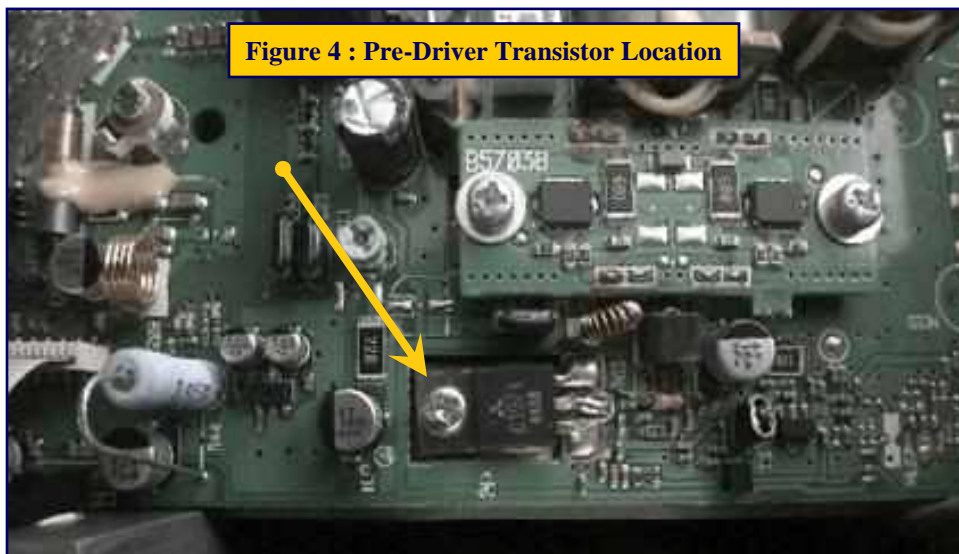


Figure 4 : Pre-Driver Transistor Location

Replacement of the driver transistors on their **Daughter Board** (**Figure 6**) required removal of the board from the chassis. This was a simple matter of desoldering four sets of four pins and removing two screws. While the transistors were the only items needing replacement on this board, it was actually easier to clear the board of all components and to start with a clean board. This board holds a total of twelve surface-mount passive devices. These included (2) 100Ω 0805 resistors, (4) 1Ω 0805 resistors, (1) 150Ω 0805 resistor, (2) 68Ω 2512 resistors, (2) 0.1μF 0805 capacitors, and (1) 22pF 0805 capacitor. The reason that it was best to wipe the board clean was because of the high heat developed in the heatsink first in removing and then in installing the driver transistors. The heat of removal was sufficient to “float” the nearby components.

Once the board was stripped and cleaned, paste solder and liquid flux were applied to the board and heatsink, after which the driver transistors, one at a time, were installed, soldering them in place via the application of focused hot air. Then, it was a simple matter to replace the passives, using the hot tweezers to install each of those devices.

With all of the failed parts replaced, it was time for the post-repair testing of the radio, followed by an alignment and tweaking job to ensure maximum performance. On delivery back to its owner, the radio performed flawlessly, making for a very satisfied customer.

Repairs of this nature can be time-consuming, but what really took the most time on this one was locating the correct replacement parts. Many of the components used in radios of this period are now obsolete and are quite difficult to source. I was very lucky, and as such, I brought in sufficient quantities to permit repair of several more radios of this type.

Take the time to research the parts carefully, and then only buy when you are sure that you are buying the right items. Then check those parts carefully against their datasheets to ensure that you have received what you expected to get. For example, I actually received and returned a set of bogus 2SC1971 transistors that had their pin assignments different from what the real 2SC1971 should have been.

Persistence and perseverance will carry the day. See you next month.

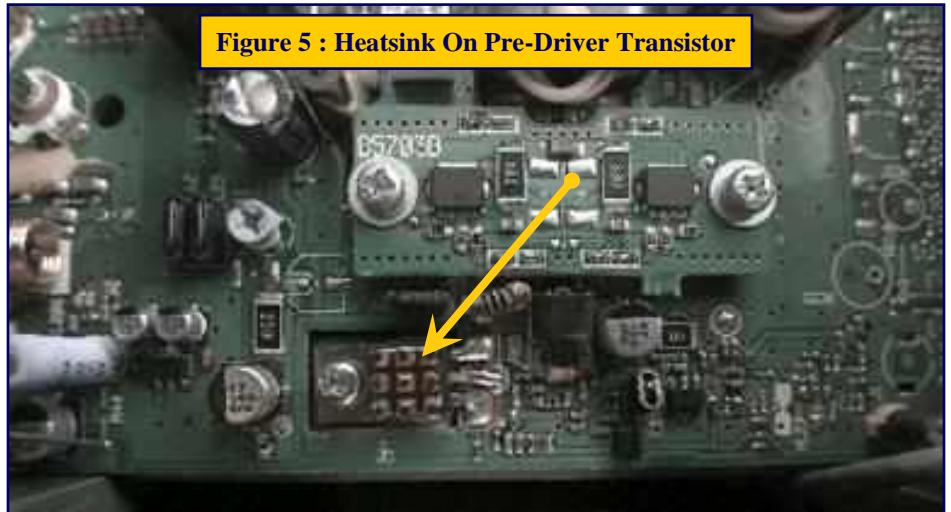


Figure 5 : Heatsink On Pre-Driver Transistor

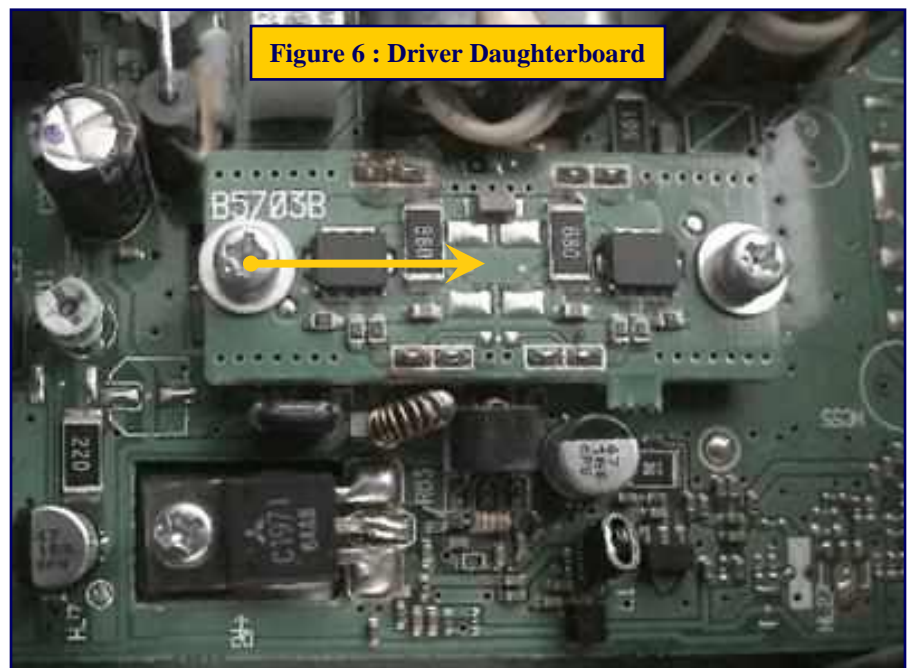


Figure 6 : Driver Daughterboard



Amateur Radio Emergency Services - January 2025 Resources - News - Updates

By Bob Keogh, KD2NEC - kd2nec@qsl.net
Gloucester County Emergency Coordinator



Copyright © 2024 American Radio Relay League, Incorporated. Use and distribution of this publication, or any portion thereof, is permitted for non-commercial or educational purposes, with attribution. All other purposes require written permission.

ARES Items in this Issue :

- Winter Field Day
- Red Cross Disaster Relief Operation
- SkyWarn Recognition Day

>>> Announcing Winter Field Day 2025

- Gloucester County ARES will participate in Winter Field Day on Saturday, January 25, 2025.
- The purpose will be to practice setting up and operating a mobile Amateur Radio station under Winter conditions.
- Organizers are Bob Keogh KD2NEC and Karl Frank W2KBF.
- We will go on the air at 11 AM and continue making HF and VHF contacts for several hours from the Red Cross Communications Trailer that will be located on the W2MMD Clubhouse Field Site in Mullica Hill, NJ.
- Visitors and guest operators are welcome.
- Event rules may be downloaded from : <https://winterfieldday.org/downloads/2025-rules.pdf>



>>> ARRL/ARES Roles on a Red Cross Disaster Relief Operation (DRO)

ARRL volunteers may perform in any of the following roles. These are examples of actual roles; they may or may not actually be included in all operations depending on the needs of the operation. It is possible that one person can support multiple roles or one role may require support from several people. This is not an exhaustive list and ARRL volunteers who have taken Red Cross Disaster Services training can participate in other roles. ARRL volunteers who are assigned roles by the Red Cross during a DRO will be provided with Red Cross credentials as required by the role, consistent with Red Cross policy.



**American
Red Cross**

Amateur Radio Liaison :

This role is for a person who is familiar with both Red Cross and local Amateur Radio operations. This role would establish contact with the local ARES unit, an Amateur Radio club and repeater owners to provide a single technical-level point of contact for the DRO. If local agreements already exist, this role could be pre-designated. It would be expected that this role would be linked to a similar role in the partner organization.

Communication Equipment Operator :

This is a standard radio operator role for someone who would operate a two-way radio or other communication device at a fixed facility or mobile/portable location to support the DRO. They would pass messages from point to point either directly or through a message relay. Operators may use DRO-issued equipment or personally owned equipment, and they may be on amateur radio frequencies or frequencies coordinated or licensed by the Red Cross.

SNJ ARES Update - Continued on page 25

Communication Equipment Installation/Repair :

This is a more technically hands-on role than the Operator. In this role, the person would be asked to temporarily install two-way radio equipment into a facility or vehicle that is under Red Cross authority through ownership, lease or rental. The equipment could include base-station radios, mobile radios and appropriate antennas. Equipment may also require field repairs, such as the radios installed into Red Cross emergency response vehicles (ERVs).

Disaster Assessment :

Individuals who have taken the necessary training with the Red Cross can assess the damage caused by a disaster and use their radio skills to relay that information back to a central point that will use the information to develop a complete picture of the event.

>>> SKYWARN Recognition Day

SKYWARN™ Recognition Day was developed in 1999 by the National Weather Service and ARRL The National Association for Amateur Radio®. It celebrates the contributions that volunteer SKYWARN radio operators make to the National Weather Service. During the day SKYWARN operators visit NWS offices and contact other radio operators across the world.

SKYWARN Recognition Day Operating Instructions

Objective :

For all amateur stations to exchange QSO information with as many Amateur Radio SKYWARN Spotters and National Weather Service Stations as possible on 80, 40, 20, 15, 10, 6, 2 meter and 70 centimeter bands. Contacts via repeaters are permitted. SKYWARN™ Recognition Day serves to celebrate the contributions to public safety made by Amateur Radio operators during severe weather events of the past year.



Date :

NWS stations will operate on the first Saturday in December, from 0000 - 2400 UTC.

Exchange :

Call sign, name, location, signal report, a one or two-word description of the weather occurring at your site ("sunny", "partly cloudy", "windy", etc.), temperature reading if available and SRD Number if the station has one.

Modes :

NWS stations will work various modes including SSB, FM, AM, RTTY, Winlink, CW, FT8, FT4, and PSK31. While working digital modes, special event stations will append "NWS" to their call sign (e.g., N0A/NWS).

Station Control Operator :

It is suggested that during SRD operations for NWS offices a non-NWS volunteer should serve as a control operator for your station.

Event and QSL Information :

The National Weather Service will provide event information via the internet. Event certificates will once again be electronic and printable from the main website after the conclusion of SRD.

Log Submission :

To submit your log summary for SRD, you can use the online submission form that will be made available on the NWS SRD Recognition main page when the event is completed. Deadline for log submission is January 31, 2025.

Be A Club Volunteer!

Club Technical Volunteer Projects :

- Processing monthly membership meeting and Tech Saturday videos for the YouTube channel
- Assisting the AV team at the Wednesday Night General Membership Meetings
- Assisting in the inventory of Clubhouse assets and keeping that inventory current
- For the more technically inclined, managing the SatNOGS station, reviewing observations, and adding new satellites to the list of those being tracked
- Reviewing new technologies for presentation at meetings or write-ups in CrossTalk.

For example, the VarAC HF digital communications program has recently been updated, it is installed on the HF station at the Clubhouse, and might provide an opportunity for an interesting short article or presentation

If you would like to volunteer for any of these projects, please contact Jon WB2MNF, Ron NR2B, or Chris AD2CS

Clubhouse Construction Volunteer Projects :

Shed : Build Ramp

Clubhouse :

- Build Ramp
- Replace Interior Front Door
- Power Wash Siding
- Replace Back Steps

Lightning Protection Project :

- Install copper strapping in Library Room
- Install copper strapping in VHF/UHF Room
- Complete grounding rod installation around Clubhouse and Towers

Install Utilities On New Front Parking Lot Pole

Install New VHF Towers

A Club that goes above and beyond for their communities and for Amateur Radio, is what defines a Special Service Club (SSC).



They are the leaders in their Amateur Radio communities who provide active training classes, publicity programs, and actively pursue technical projects and operating activities.

GCARC has been an ARRL Affiliated Club since February 1960 and an SSC since April 2010.



Club Member	DMR ID
W2MMD Clubhouse	3198604
Michael Andrescavage, N2ICV	3134044
Lance Appel, KE2UC	3200487
Alex Calabrese, WA2ADS	3100583
Chuck Capasso, WB2PGE	3169781
Matthew Carango, N3QB	3169432
Todd Cecilio, KA2YNT	3169458
Anthony Cerami, N2OAC	3202759
Mark Clark, N3QMJ	3102110
Holden Correia-Fisher, KD2JPV	3104911
Mike Covalleski, N2MMC	3134855
Walter Coward, WX2E	3166863
Bob Demola, KD2GFL	3134319
Doug Dersch, KD2VQA	3193630
Thomas Distelcamp Sr, KC2GYC	3110869
Glenn Dougherty, N2YIO	3161836
Adam Duncan, W3DUN	3202691
Herb Dyer, KT2Y	3134907
Harry Elwell, AD5TT	3128498
James Foster, W3JNF	3142117
Karl Frank, W2KBF	3146716
Glen Guenther, KE2BUO	3202079
Melissa Guenther, KE2BWZ	3202496
Deirdre Anne Hebert, AD2GQ (AB1ST)	3133330

Club Member	DMR ID
Chuck Lanard, KD2EIB	3134298
Gary Mirkin, WA3SVW	3165494
John Murrow, KD2NHK	1134122
Phil Nunzio, WA3RGY	3134336
John O'Connell, K2QA	3110610
Robert Pantazes, W2ARP	3157208
Jonathan Pearce, WB2MNF	3163415
Michael Pecorini, K2MRP	3132996
Michael Pentimall, KC3VTF	3203601
John Price III, KD2QYC	3123583
Chris Prioli, AD2CS	3195449
Michael Resnick, N2WOQ	1134013
Len Rust III, W2LJR	3186225
Len Rust IV, K2LJR	3196243
Dave Sheppard, W2PAX	3112666
Cory Sickles, WA3UVV	1142052
James Simeone, KC2AOF	3134848
Court Smith, KD2SPJ	3186243
Jackson Snyder, AI2D	3164371
Rich Subers, W2RHS	3204316
Brett Waller, K2BKW (KC2UXQ)	3134261
Bill Wood, KD2OSJ	3197459
John Zaruba Jr, K2ZA	3134331

For more information, DMR links, and W2LJR's DMR presentations, go to :
<https://gloucestercountyarac.weebly.com/dmr.html>

CrossTalk Submissions

This is your Club Magazine. Make use of it.

If you have stories or photos of your hobby that you would like to share with the Club, please do so! We will keep covering all of the GCARC events, but it is also nice to get those personal perspectives to include in every issue. Connecting through experiences is what makes the Gloucester County Amateur Radio Club a *REAL* Club.

All submissions, queries, comments, and editorials should be addressed to :
 Jeff Garth, WB2ZBN at djgrath1 <at> gmail <dot> com

Submission deadline for the February 2025 issue : Monday, January 20, 2025

Club Website www.w2mmd.org

Club E-Mail Reflector : GCARC <at> Mailman <dot> QTH <dot> Net

DMR Configuration Sequence

1. Obtain and Configure DMR ID :

- <https://www.radioid.net>

2. Download Contact List :

- <http://www.dmrcontacts.com>

3. Identify Repeater or Hotspot :

- <https://www.repeaterbook.com>

4. Define Talk Groups

- Numerical ID
- Text Name

<https://brandmeister.network/?page=talkgroups>

5. Create Channel

- Select Number
- Assign Name
- Select DMR ID
- Assign Frequency
 - ♦ Transmit
 - ♦ Receive
 - ♦ Bandwidth
 - ♦ Power
 - ♦ DMR Mode (Simplex/Repeater)
 - ♦ TX Permit (Channel Free)

- Assign Talk Group
- Assign Color Code
 - ♦ Agreed Upon with Other Users
- Assign Time Slot
- Agreed Upon with Other Users

6. Create Zone

7. Add Channels to Zones

8. Configure Features

9. Upload Code Plug

10. Upload Contact List

If you recently changed your callsign, contact idteam@dmr-marc.net to have your DMR ID transferred to your new callsign.

ARES Resources (Updated as of November 2024)

ARRL ARES Registration Form : <https://bit.ly/3Ae2pCf>

Download the ARES Manual [PDF] : <https://bit.ly/3iUhJLQ>

ARES Field Resources Manual [PDF] : <https://bit.ly/3QT4PtY>

ARES Standardized Training Plan Task Book July 2024 Ver. 3.0 [Fillable PDF] : <https://bit.ly/4dToEes>

ARES Standardized Training Plan Task Book July 2024 [Word] : <https://bit.ly/4heLXSU>

ARRL ARES Plan July 2024 : <https://bit.ly/3Uf8gyf>

ARES Group Registration : <http://bit.ly/3XodGpX>

ARRL Emergency Communications Training : <http://bit.ly/3J2gMMf>

FEMA 2023 National Preparedness Report : <https://bit.ly/3YrPWnY>

Southern New Jersey Section Emergency Operations Plan 2023.PDF : <https://bit.ly/3YqMdHb>

ARRL ARES Monthly Newsletters : <https://bit.ly/408OV5d>

The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an amateur radio program, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable but is not a requirement for membership.

If you are interested in learning more about the Gloucester County ARES Program or becoming an ARES member, please contact Bob Keogh (KD2NEC@QSL.NET)

The GCARC Remote HF Radio System

By Chris Prioli, AD2CS

It has been a little while since this topic has been discussed here in CrossTalk, so I figured that it was time to make a change in that history. As most if not all of you already know, GCARC has a full-legal-power HF radio system available for use by Club members from the comfort of their homes. Lately, this radio system has been seeing an increase in use by Club members, and that is great! That is exactly why the system exists, and I hope that this increased use continues.

To refresh the memories of those of you who may have forgotten, use of the radio is on a first-come, first-served basis, managed by a public calendar to which all users of the radio have access. The rules that were developed to help ensure equitable access to the radio system specify a few key points. (The guidance document from which this information is drawn is attached to the end of this article.) The key points are :

- Use of the radio must be by reservation as entered on the Clubhouse Calendar.
- Any time period that is not already claimed by another user or Club function is available for personal use.
- It is acceptable to reserve radio time immediately before the time period begins *if no other user has previously booked the time period*.
- Any user who has reserved time on the Clubhouse Calendar takes precedence over any user who may be operating the radio but did not in fact book the time in the Clubhouse Calendar, at which time the “un-booked” user must relinquish control of the radio system to the “booked” user.

These are the basic rules under which the radio time is shared by Club members. There are some time periods when the radio is not available due to being reserved for Club use purposes co-incident to various Clubhouse activities. Examples might include the Dinner at the Clubhouse evenings and the Tech Saturday Forum.

It is also possible that the Club might book the radio for all or part of certain on-air Contesting events, so as to allow a group of interested Club members use the system from the Clubhouse. As far as Contests go, however, the rules specifically state that no single user can reserve the radio for the entire period of time that a contest is active. This is to ensure that other interested Club members have an opportunity to participate in the same contest using the Club’s radio system.

Recently, we had a period of instability in the remote system that started with an un-commanded upgrade to Windows 11. That “upgrade” caused all sorts of problems with the working of the system. In the midst of correcting that issue, we then lost a sound card in one of the external peripherals. Ultimately, with the operating system completely removed and the drive freshly partitioned, a clean install of the operating system was installed and configured, the failed sound card was replaced, and we got everything properly configured and operating again. The system is in good shape and should be rock-solid and reliable at this point.

Remember that all licensed Club members can obtain authorization to use the remote radio. I trained three new users on a recent Sunday morning, and I have added them to the user list. However, the more users that we have who are able to use the system, the more we have to stick to the guidelines when we use the system.

GCARC Remote HF Radio System - Continued on page 30

To make it simple to get to the Clubhouse Calendar, it is a good idea to create a shortcut to that calendar on the Desktop of your computer. This can easily be done by following the steps below :

1. Right-click on a blank spot on your Desktop, and select **New > Shortcut**.
2. In the **Create Shortcut** dialog box that appears, type the text string <https://teamup.com/ksfzrz4y6atkr45biv> in the blank line labeled “**Type the location of the item**”, and then click **Next**.
3. The new dialog box that appears is labeled “**What would you like to name the shortcut?**”... to which you will type **Clubhouse Calendar** into the text box under the string instructing you to “**Type a name for this shortcut:**”.
4. Click the **Finish** button and the new shortcut will appear on your Desktop.
5. It may be desirable to change the icon associated with this shortcut to something that you will instantly recognize as a calendar, which will separate this icon from any other web-page shortcut icons that may also be on the Desktop.
6. To change the shortcut icon, right-click on the shortcut icon and select **Properties**.
 - A. Click on the **Change Icon** button on the **Web Document** tab.
 - B. Click on one of the icons shown there for the browser in use on your system, or click **Browse** to select an icon from a different location.
 - C. After clicking the browse button, browse to the specific location and file as follows :
C:\Windows\System32\SHELL32.dll. Note that the actual path to the **SYSTEM32** folder may be different on individual machines. For this reason, it is also possible to enter the path into the box by typing the string **%SystemRoot%\System32\SHELL32.dll** which will effectively point to the same location.
 - D. A collection of icons stored within that Dynamic Link Library (**.dll**) file will appear. Choose one of the icons for use with your Calendar shortcut by clicking on the desired icon and then clicking the **OK** button. Then click the **Apply** button, and the icon will be assigned to the shortcut.

There is probably already a shortcut to the **RC Forb Client** software on your desktop, placed there when the application was installed to your computer. This is, of course, the software that is used to access the remote radio system.

Remember that the specific frequencies to which any member will have access within the remote system will depend upon the license that the individual member holds at the time that the member is added to the remote radio user list. The software will help to keep you legal by not permitting you to tune a frequency which is not permitted for your license level. As a result, if you should happen to upgrade your license to one at a higher-level, you must specifically request the increased privileges, as the upgrade will not be automatically recognized by the software. All that it takes is an e-mail to me and I will make the change in the system.

As you use the remote radio, remember that the radio's native output power must be reduced to about 35 watts when the linear RF amplifier is used. Also remember that this radio will **not** automatically select the correct side-band for use based upon the selected operating frequency. It is the user's responsibility to make the proper side-band selection.

All of the required antenna tuning has already been done, and the system will select the correct antenna from the available array of antennas when an operating band is selected. The antenna rotator control will allow the user to point the antenna in the desired direction. We no longer require the antenna to be parked at the 45° azimuth as we previously had done. This is because we have decided that it is better **not** to cause excessive wear in the one spot in the rotator system, but instead to allow the antenna to remain in different positions when not in use. If it is parked in the same spot all of the time, that particular spot in the rotator system will see accelerated wear because of the wind acting on the antenna.

If any member reading this decides that remote access is something in which you have an interest but you are not yet a user of the system, drop me an email and I will set up a training meeting for you. At that meeting, we will configure the software and familiarize you with the RC Forb client interface, including instruction on the use of the amplifier and the rotator system. We will also spend a few minutes discussing the Clubhouse Calendar and how to use it to reserve the radio for your use. Training takes about an hour and a half in most cases, and it can be done via a special ZOOM session. The radio is available to all licensed Club members – including those who hold Technician tickets. There is currently a lot of activity on ten meters and even some on six meters, so why not?

The remote radio system is one of the nice perks of membership in our Club. Unfortunately, most of the time, that radio sits there idle and is vastly under-utilized, but that does not have to be the case. This system is available to all licensed members, so let's make use of it!

GCARC HF Station Usage Guidelines

- All members who wish to operate the HF Station, either locally at the Clubhouse or from a remote location, are to reserve operating time for use of the station via the Clubhouse Calendar.
- Members may schedule a time period immediately before use if the time slot is open.
- No single user may block out any time period that encompasses an entire contest period.
- For major contests, as determined by our Contests Committee Chair, the station may be reserved for multi-operator local use at the Clubhouse, and therefore may not be available for remote use.
- The HF Station will be reserved for local use at the Clubhouse from 1000 to 1400 hrs on all *Tech Saturday Forum* dates.
- The HF Station will be reserved for local use at the Clubhouse from 1800 to 2100 hrs on all *Dinner at the Clubhouse* dates.
- Any member who reserves time on the HF Station and does not exercise that reserved time period within twenty minutes of the scheduled start time may be pre-empted by another user.
- When reserving a usage period via the Clubhouse Calendar, be sure to enter your call sign in the **Who** block, and to enter a valid phone number where you can be reached during the scheduled time period.
- If you find yourself not using the time period that you have reserved, or if you finish up prior to the expiration of your reserved time, go back to the Clubhouse Calendar and revise the time period to reflect the actual times, so that other members will see that the station is available for use. **DO NOT DELETE YOUR RESERVATION ENTRY!**

Woodruff School STEM Club Balloon Launch

By Angela Metzger KE2DRJ

As many of you already know, the **Gloucester County Amateur Radio Club** has paired up with **Woodruff Middle School** to develop a STEM program focusing on ballooning. After several weeks of learning about weather patterns, the effects of air pressure and altitude, telemetry and how to solder, the Woodruff School STEM Club had a very successful launch on November 14, 2024.

Launch Date

We chose November 14th as launch day for a couple key reasons. At this time of the year the sun sets pretty early and daylight is a premium. Our original plan was to launch an SBS balloon with a ZachTek and solar panels. This meant we would need at least two to three hours of good sunlight to receive consistent telemetry and the only way to do that would be either on a weekend or when the students had a half day.

This leads us to our next reason. We wanted as many of the STEM students as possible to be a part of the launch. Many of these students are involved in sports and other activities outside of school. If we chose to launch on a weekend some of the STEM students would not be able to attend. Launching on a half day meant that the students were already in school and the launch wouldn't compete with their other activities.

The date was set and parents, staff and school board members were invited to attend.

Orbs vs SBS

The SBS balloon is a super pressure balloon that can reach an estimated altitude of 41,000 feet. This balloon is great for high altitude flight and has a good chance of circumnavigating the Earth. With that being said, it is not a cost effective option for test flights and questionable weather conditions.

The ORBS balloon is a less expensive option that can reach altitudes of approximately 20,000 feet. This balloon has to be stretched and deflated prior to filling with helium. This allows enough space for the helium to expand and reduces the risk of popping a seam. The ORBS balloon is much more cost effective but is not stable at higher altitudes.

Since mother nature chose not to cooperate on our launch date we made the choice to use the more cost effective ORBS balloon. We watched the weather closely in hopes that maybe the skies would clear and we could simultaneously launch an SBS balloon. Unfortunately the cloud cover and air density was too great and it was decided to only launch the ORBS balloon.

Payload and Antenna

Solar panels would not have been effective under the weather conditions and storms were being tracked to the west of the launch site. With the heavy cloud cover we chose to use a Traquito Jetpack for our payload. This is a Traquito-designed Pico with a WSPR tracker that is powered by a 123 battery.

The antenna was made of 34 gauge wire. While teaching the STEM students how to measure and weigh the antenna it was determined that the Teflon coated wire that was donated to the balloon project was too heavy. A lighter wire was needed and the 34 gauge was chosen. The antenna was a total of 34 feet of wire that was assembled in two $\frac{1}{4}$ wave sections to make a dipole. The payload was attached between the two sections.

Woodruff School STEM Club - Continued on page 33

Launch

The STEM students were divided up into 3 teams for launch day. The balloon team, under the watchful eye of **Jon Pearce WB2MNF**, was in charge of stretching and inflating the balloon as well as determining the weight of the payload, assembly and the necessary lift. The computer team, with the guidance of **Mike Thompson KG4JYA**, used windy.com and Sondheim.org to determine the best launch area and make predictions of the balloon's flight path. The communications team was in charge of speaking to the parents, school board members and school staff that were invited to watch the assembly and launch. In addition, the communications team, with **Mike Resnick N2WOQ** as control operator, was in charge of communicating between the crowd, the computer team, and the launch team via the radio.

Once the computer team was able to confirm that packets were being received and decoded, and with a countdown from very excited students who were attending an after school program, the balloon was launched at approximately 1:34 pm. The computer team correctly projected that the balloon would head west over Woodruff School. The balloon gained altitude, continued west and disappeared into the cloud cover as the crowd cheered.

Launch Summary

The students predicted that the balloon would head west for a while before heading north and eventually circling back around to head south and out over the Atlantic Ocean. They did an amazing job because that is exactly what happened. Although there are gaps in the telemetry, most likely due to freezing temperatures at higher altitudes, we can get a clear picture of the balloons flight path using the telemetry we did receive.

Friday morning, students were concerned that the balloon had not made it through the storms and rain in the west. They periodically checked for telemetry on the Traquito site as well as the Sondehub site. Excitement grew when the balloon started transmitting again at 09:10 and showed an altitude of 3,675 feet! The balloon continued to climb and eventually reached an altitude over 17,000 feet. At 15:40, after four hours of silence from the balloon, telemetry indicated that the balloon was descending over international waters of the Atlantic Ocean off the coast of lower Maryland. The last transmission was received at 18:20 with an altitude of 1,115 feet.

Overall the balloon's flight was approximately 29 hours long! It flew over 300 miles while transmitting data that included GPS, temperature, altitude, speed and battery voltage. We know that the balloon traveled into parts of eastern Pennsylvania before coming back into New Jersey and heading right back down to southern New Jersey and heading out over the Atlantic Ocean. The transmitter data was received all over the world including Canada, France, South America, Italy and Australia. A very successful flight indeed!

School Board Meeting

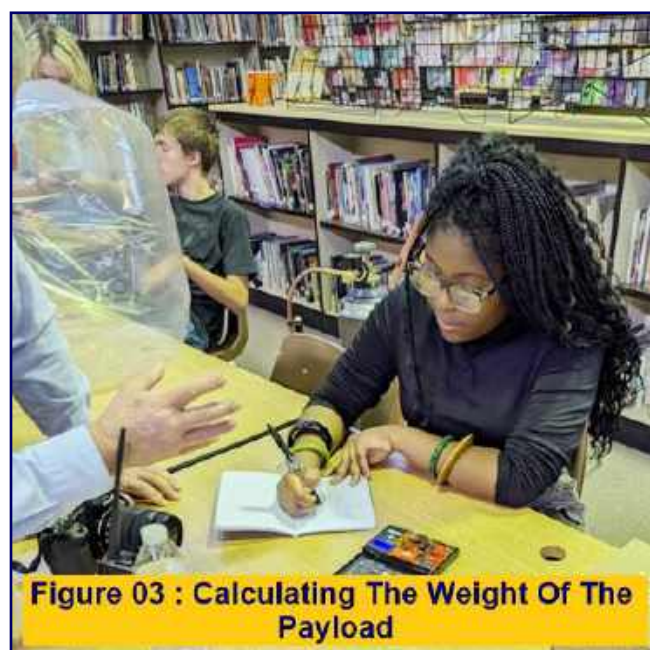
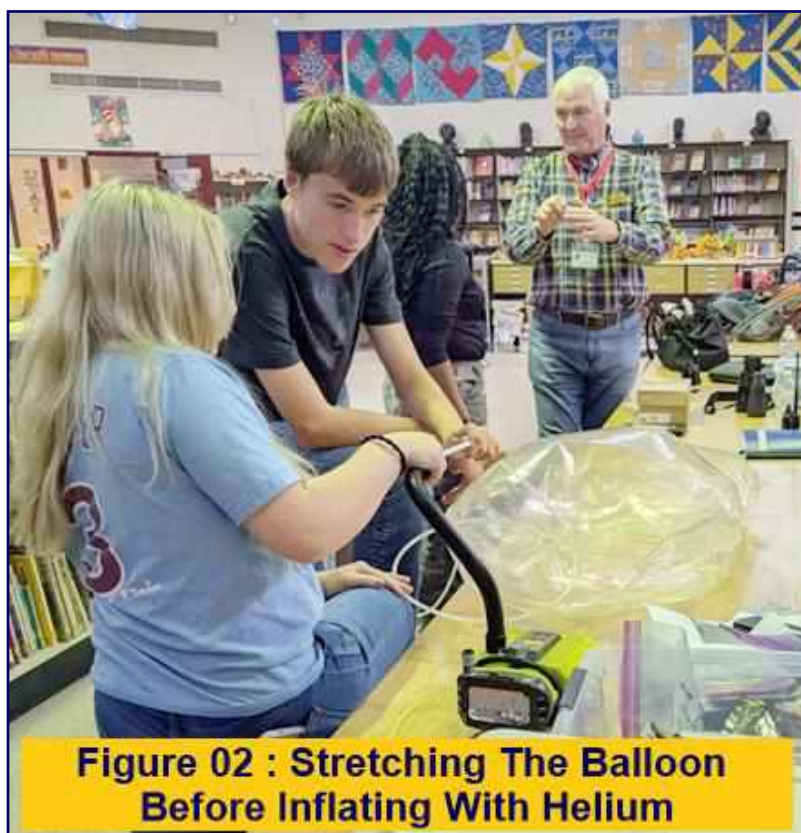
The STEM students' jobs weren't done yet. These students knew that the STEM program had only been approved for a 10 week period and they did not want to see it all end. Four members from the STEM club attended the school board meeting on November 19, 2024. There three of the members spoke to the school board, parents and district staff in hopes of having the program extended to the end of the school year.

The three students spoke about the new skills they have acquired, making new friends, making connections to future careers, and the excitement of launching their first balloons. They brought their soldering projects, a board with a speaker and lights that react to sound, and showed off their new skills. They talked about building their confidence, having access to a unique program and the anticipation of what they will learn next including possibly getting their HAM license!

After the students' speeches the school board announced that they have approved the continuation of the STEM Club and look forward to seeing what we do next!

Woodruff School STEM Club - Continued on page 34

The Woodruff School STEM Club would like to thank **Joseph Lee N2BNJ**, for recommending a STEM outreach by the Gloucester County Amateur Radio Club. We would also like to thank **Jon Pearce WB2MNF**, **Mike Thompson KG4JYA**, and **Mike Resnick N2WOQ** for volunteering their time with the students and Air Gas for donating the helium (without which our balloons would go nowhere).



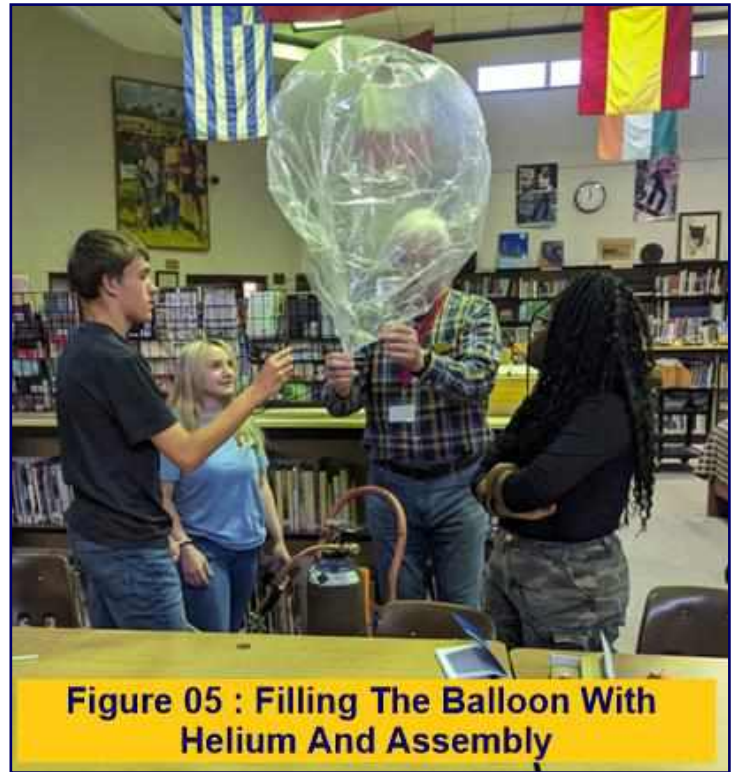
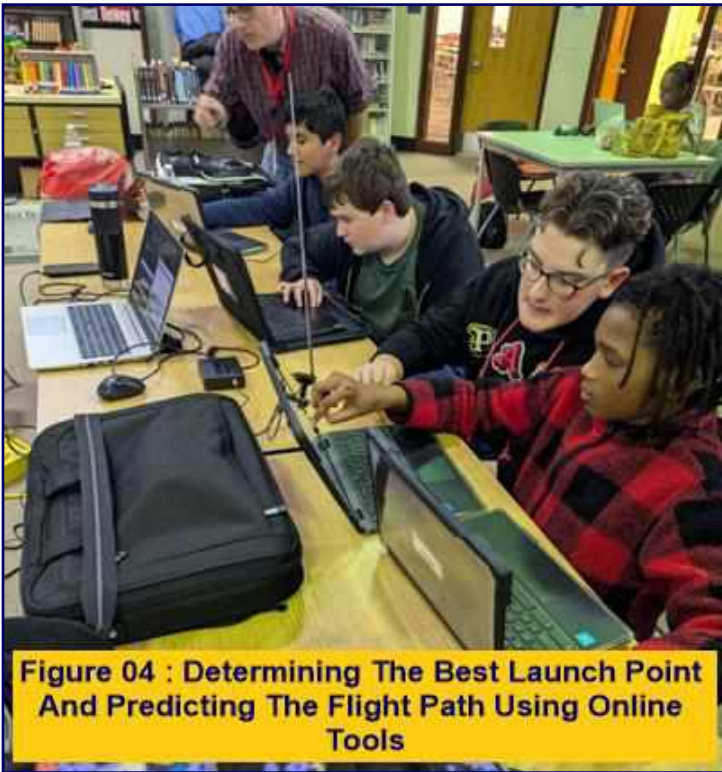


Figure 08 : The Balloon's Transmitter Was Heard All Over The World!



[download CSV or KML w/ Altitude or KML no Altitude] or [copy to clipboard]																										
Map	Date/TimeUTC	Date/TimeLocal	RegSeen	EncSeen	RegCall	EncGrid	RegPower	EncCall	EncGrid	EncPower	GpsValid	GridId	AltRaw	Knots	Grid	Voltage	AltM	TempC	KPH	GpsKPH	DistKm	Altft	TempF	KPH	GpsMPH	DistMi
SSB	2024-11-15 23:20	2024-11-15 18:20	42	47	M2MPO	FX29	13	Q13CUN	L193	13	1	TX	348	24	FX271X	3.00	348	8	44	9	1,115	46	28		5	
SSB	2024-11-15 23:10	2024-11-15 18:10	78	41	M2MPO	FX29	13	Q03605	KQ32	10	1	SA	760	24	FX285A	3.00	760	5	44	9	2,493	41	28		5	
SSB	2024-11-15 23:00	2024-11-15 18:00	51	43	M2MPO	FX29	13	Q036P0	L886	3	1	RB	340	26	FX288B	3.00	340	6	48	47	1,115	43	30		29	
SSB	2024-11-15 22:00	2024-11-15 17:00	76		M2MPO	FX29	13																			
SSB	2024-11-15 21:50	2024-11-15 16:50	61	65	M2MPO	FX29	13	Q03MH	L885	40	1	NO	1,340	22	FX28ND	3.00	1,340	6	41	36	5	4,396	43	25		22
SSB	2024-11-15 21:40	2024-11-15 16:40	72	61	M2MPO	FX29	13	Q03MA	L885	27	1	NK	1,680	20	FX28NK	3.00	1,680	6	37	34	5	5,512	43	23		21
SSB	2024-11-15 21:30	2024-11-15 16:30	98	50	M2MPO	FX29	13	Q03QLS	L191	60	1	NL	2,000	12	FX28NL	3.00	2,000	8	22	27	9	6,562	46	14		17
SSB	2024-11-15 21:20	2024-11-15 16:20	74	59	M2MPO	FX29	13	Q13600	L191	60	1	PH	2,320	12	FX28PH	3.00	2,320	8	22	27	5	7,612	46	14		17
SSB	2024-11-15 21:10	2024-11-15 16:10	92	88	M2MPO	FX29	13	Q13HTG	LMA5	40	1	PH	2,640	12	FX28PH	3.00	2,640	9	22	27	0	8,661	48	14		17
SSB	2024-11-15 21:00	2024-11-15 16:00	90	82	M2MPO	FX29	13	Q13HTV	LP99	20	1	PH	2,940	12	FX28PH	3.00	2,940	10	22	21	5	9,646	50	14		13
SSB	2024-11-15 20:50	2024-11-15 15:50	38	81	M2MPO	FX29	13	Q1337H	M853	13	1	PD	3,140	14	FX28PD	3.00	3,140	11	26	19	5	10,302	52	16		11
SSB	2024-11-15 20:40	2024-11-15 15:40	89	93	M2MPO	FX29	13	Q13K7Z	LP99	20	1	PP	3,460	12	FX28PP	3.00	3,460	10	22		190	11,352	50	14		118
SSB	2024-11-15 16:40	2024-11-15 11:40	83		M2MPO	FX29	13																			
SSB	2024-11-15 16:30	2024-11-15 11:30	89	71	M2MPO	FX29	13	Q13AAU	KQ31	20	1	PI	5,200	16	FX28PI	3.00	5,200	5	30	26	5	17,060	41	18		17
SSB	2024-11-15 16:20	2024-11-15 11:20	87	66	M2MPO	FX29	13	Q13BPE	M853	13	1	PD	4,840	14	FX28PD	3.00	4,840	11	26	21	5	15,879	52	16		13
SSB	2024-11-15 16:10	2024-11-15 11:10	96	76	M2MPO	FX29	13	Q133DR	LMA5	53	1	PK	4,540	14	FX28PK	3.00	4,540	9	26	22	5	14,805	48	16		14
SSB	2024-11-15 16:00	2024-11-15 11:00	84	53	M2MPO	FX29	13	Q13ES0	L192	10	1	ML	4,220	14	FX28ML	3.00	4,220	8	26	27	0	13,845	46	16		16
SSB	2024-11-15 15:50	2024-11-15 10:50	69	28	M2MPO	FX29	13	Q13ERN	L198	3	1	PL	3,900	10	FX28PL	3.00	3,900	7	19	21	5	12,795	45	12		13
SSB	2024-11-15 15:40	2024-11-15 10:40	67	49	M2MPO	FX29	13	Q130GA	L191	47	1	PH	3,600	10	FX28PH	3.00	3,600	8	19	21	8	11,811	46	12		13
SSB	2024-11-15 15:30	2024-11-15 10:30	86	75	M2MPO	FX29	13	Q03PAR	L191	60	1	LN	3,300	12	FX28LN	3.00	3,300	8	22	21	0	10,827	46	14		13
SSB	2024-11-15 15:20	2024-11-15 10:20	72	72	M2MPO	FX29	13	Q03VAG	LP98	30	1	LN	3,080	4	FX28LN	3.00	3,080	16	7	21	5	10,105	50	5		13
SSB	2024-11-15 15:10	2024-11-15 10:10	67	77	M2MPO	FX29	13	Q03X0X	L191	33	1	LO	2,760	8	FX28LO	3.00	2,760	8	15	11	0	9,055	46	9		7
SSB	2024-11-15 15:00	2024-11-15 10:00	74	75	M2MPO	FX29	13	Q03X0C	L191	47	1	LO	2,440	10	FX28LO	3.00	2,440	8	19	17	5	8,005	46	12		10
SSB	2024-11-15 14:50	2024-11-15 09:50	71	63	M2MPO	FX29	13	Q03YYZ	MH13	40	1	LP	2,820	8	FX28LP	3.00	2,820	14	15	17	0	6,627	57	9		10
SSB	2024-11-15 14:40	2024-11-15 09:40	57	38	M2MPO	FX29	13	Q03YYX	M821	13	1	LP	1,780	10	FX28LP	3.00	1,780	16	19	22	5	5,840	61	12		14
SSB	2024-11-15 14:30	2024-11-15 09:30	39	58	M2MPO	FX29	13	Q03MPO	NE74	57	1	LQ	1,560	10	FX28LQ	3.00	1,560	17	19	21	5	5,118	63	12		13
SSB	2024-11-15 14:20	2024-11-15 09:20	55	35	M2MPO	FX29	13	Q03CBH	M129	13	1	LR	1,380	16	FX28LR	3.00	1,380	10	30	28	5	4,528	64	18		17
SSB	2024-11-15 14:10	2024-11-15 09:10	50	41	M2MPO	FX29	13	Q130PW	MI61	0	1	LS	1,120	18	FX28LS	3.00	1,120	13	33		141	3,675	55	21		87
SSB	2024-11-14 19:00	2024-11-14 14:00	66	56	M2MPO	FX29	13	QC3KCF	Q036	57	1	IM	780	12	FX29IM	3.00	780	5	22	14	0	2,559	41	14		9
SSB	2024-11-14 18:50	2024-11-14 13:50	87	65	M2MPO	FX29	13	QC3K13	L191	60	1	IM	340	12	FX29IM	3.00	340	8	22	14	7	1,115	46	14		9
SSB	2024-11-14 18:40	2024-11-14 13:40	67	70	M2MPO	FX29	13																			
SSB	2024-11-14 18:30	2024-11-14 13:30	11	13	M2MPO	FX29	13																			

Figure 09 : Telemetry Received

2024-2028 Element 4 Amateur Extra Class License Question Quiz

This month we start with Subelement E2 Operating Procedures (5 exam questions - 5 groups).
(Answers on Last Page)

E2A01

What is the direction of an ascending pass for an amateur satellite?

- A. From west to east
- B. From east to west
- C. From south to north
- D. From north to south

E2A02

Which of the following is characteristic of an inverting linear transponder?

- A. Doppler shift is reduced because the uplink and downlink shifts are in opposite directions
- B. Signal position in the band is reversed
- C. Upper sideband on the uplink becomes lower sideband on the downlink, and vice versa
- D. All these choices are correct

E2A03

How is an upload signal processed by an inverting linear transponder?

- A. The signal is detected and remodulated on the reverse sideband
- B. The signal is passed through a nonlinear filter
- C. The signal is reduced to I and Q components, and the Q component is filtered out
- D. The signal is mixed with a local oscillator signal and the difference product is transmitted

E2A04

What is meant by the “mode” of an amateur radio satellite?

- A. Whether the satellite is in a low earth or geostationary orbit
- B. The satellite’s uplink and downlink frequency bands
- C. The satellite’s orientation with respect to the Earth
- D. Whether the satellite is in a polar or equatorial orbit

E2A05

What do the letters in a satellite’s mode designator specify?

- A. Power limits for uplink and downlink transmissions
- B. The location of the ground control station
- C. The polarization of uplink and downlink signals
- D. The uplink and downlink frequency ranges

E2A06

What are Keplerian elements?

- A. Parameters that define the orbit of a satellite
- B. Phase reversing elements in a Yagi antenna
- C. High-emission heater filaments used in magnetron tubes
- D. Encrypting codes used for spread spectrum modulation

Element 4 Amateur Extra Class Quiz - Continued on page 38

E2A07

Which of the following types of signals can be relayed through a linear transponder?

- A. FM and CW
- B. SSB and SSTV
- C. PSK and packet
- D. All these choices are correct

E2A08

Why should effective radiated power (ERP) be limited to a satellite that uses a linear transponder?

- A. To prevent creating errors in the satellite telemetry
- B. To avoid reducing the downlink power to all other users
- C. To prevent the satellite from emitting out-of-band signals
- D. To avoid interfering with terrestrial QSOs

E2A09

What do the terms “L band” and “S band” specify?

- A. The 23- and 13-centimeter bands
- B. The 2-meter and 70-centimeter bands
- C. FM and digital store-and-forward systems
- D. Which sideband to use

E2A10

What type of satellite appears to stay in one position in the sky?

- A. HEO
- B. Geostationary
- C. Geomagnetic
- D. LEO

E2A11

What type of antenna can be used to minimize the effects of spin modulation and Faraday rotation?

- A. A linearly polarized antenna
- B. A circularly polarized antenna
- C. An isotropic antenna
- D. A log-periodic dipole array

E2A12

What is the purpose of digital store-and-forward functions on an amateur radio satellite?

- A. To upload operational software for the transponder
- B. To delay download of telemetry between satellites
- C. To hold digital messages in the satellite for later download
- D. To relay messages between satellites



Club Merchandise from the K2ZA Workshop
Contact John Zaruba Jr, K2ZA at k2za@icloud.com
Go To : <https://gloucestercountvarc.weebly.com/club-merchandise.html>



Antennas : The Hustler 5BTV - Revisiting An Old Favorite

By Tony Starr, K3TS

Back in 2016, I purchased a Hustler trap vertical, mostly to use with my old camper, which had an aluminum roof. I fashioned a custom mounting bracket from some electrical supply hardware, and found that I could deploy the antenna in about 15 minutes, and it worked really well. When the camping season was over, I used the antenna, ground mounted, in my backyard, as a backup to my tri-bander and dipoles. I got a lot of good use out of that \$200 antenna. A few years ago, I put a mobile HF station in my truck, and later bought a new camper without an aluminum roof, so after that time, the Hustler sat unused in my garage, as I no longer needed it. Then, earlier this past summer, we re-located to the Western PA section, and I started the process of setting up a new station here in our new home near Breezewood PA. I put up a 40m dipole in the trees, so that I could check into Jim's (the Old Salty Veteran) 40m net, but that was about it.

About a week before the August NAQP CW contest, I got the idea that I would like to put up a temporary antenna with 5 band coverage. I considered several options, but most of them would take too long just to obtain the needed materials. For some reason, delivery up here of just about everything takes much longer than in SNJ. With this limitation, I would have to use what I had on hand. Fortunately, all of my antenna hardware, including a collection of tubing and masts, was in my son's barn just 18 miles from the new QTH. So I decided to go with the 5BTV, but on an elevated mast mount, rather than on the ground with a bunch of radials. The radials are the most important part of a vertical antenna installation, but they can also be very labor-intensive to install. I decided to go elevated in order to reduce the required labor, and also to not interfere with the mowing of that area of the lawn.

Unlike ground radials, elevated radials must be tuned to a specific length, which is usually a quarter wavelength, or an odd multiple thereof. In order to maintain balanced current distribution, it is a good idea to use pairs of these radials, inline with each other, and spaced apart from the radials for the other bands. Since it is a pain to tie off all of those radials, I decided on just two per band, and I skipped the 15m ones, with the idea that the 40m radials would cover that band, as they are 3x the length needed. This left just a pair each for 10, 20, 40, and 80 meters. Since I was using a 20 foot mast, with 4-point guying, I calculated that I could tie the 10 and 20 meter radials right to the guy anchor stakes, eliminating the need to find tie points for half of my 8 radials. This was important, as I was putting this antenna basically in the middle of a large, open lawn area, and tie points were few and far between.

The 40 and 80 meter radials, however, were much longer than the upper band ones, so I needed to tie them off to some nearby trees. This made it necessary to find and choose the trees ahead of time, and place the antenna mast location where access to said trees would be handy. Fortunately, I had several spaces on the property that would work nicely. The angle of the 10 and 20 meter radials was close to 45 degrees, which raises the input impedance close to a perfect 50 ohms, but the 40 and 80 meter radials were too long for that much of an angle, so the impedance match on those two bands was not nearly so perfect. I did find that by adding a foot or so of wire to one of the two radials, that I could adjust the SWR somewhat, to below 2:1 in the areas of the bands that interested me. While I accept a perfect match when I can get it, I do not typically spend a lot of time playing with an antenna once I get the SWR below 2:1. Remember, the Better is the enemy of the Good Enough!

Once I had everything tuned and set, I was basically ready to rock and roll for the NAQP contest. And since I had a five band antenna, it was like having automatic antenna switching, which is always nice in a contest. I finished it up on Friday, August 2nd, the day before the contest, just in the nick of time! When the starting gun sounded, I began on 15m, which worked well using the 40m radials. I am not sure about the radiation pattern, but I assumed it was mostly omni-directional. On the other bands, performance was just as good, if not better. The antenna turned out to be especially good on 40 meters, which is ironic, because the BTV series antennas almost never have a good match on that band. But they do put out a great signal!

Hustler 5BTV Revisited - Continued on page 40

I was able to call CQ quite a lot, actually, and I hit a ton of skimmers, maybe too many, over in Europe. It's a shame that I was trying to work North America exclusively, because this antenna is really great on paths over 4000 miles. I took a look at my skimmer spots for August 2nd and what I saw confirmed this. Much of the time I was hitting more EU skimmers than those in NA. Even on 80m, which is supposed to be lousy on a 5BTV, my signals into the EU skimmers were quite respectable, even just using 100 watts, the limit for all NAQP entry classes. While I was planning to have my tower, tri-bander, and dipoles up by the October and November World Wide DX contests, if I didn't manage to get that done, I would have definitely considered working the DX contests using the Hustler.

In the end, when I did finally get the tower up in October, the "ideal" location where I had put the 5BTV was right in the way of one of the tower guy wires, so it had to come down. Even with my tri-bander and dipoles back up where they belong, I still miss the Hustler. Maybe some day I will put it back up. I definitely do miss it, even though what I now have is many times better. One can never have too many antennas! And five band coverage from a single feedline is hard to beat, especially with the cost of coax these days.

So the bottom line is, if you are looking for a good DX antenna that is inexpensive and easy to put up, consider the tried and true Hustler BTV series, especially with an elevated mounting arrangement. It only took me a couple of days to get the whole thing up and working well, and with minimal extra hardware, which was basically a 20 foot aluminum mast and some heavy duty tent stakes. Get one, get it up, and start working some DX or some contests.

If you have any questions, just email me at tstarr1450@gmail.com. 73 for now.

de K3TS



Volunteer Monitor Program Report - September 2024

The Volunteer Monitor (VM) Program is a joint initiative between ARRL and the FCC to enhance compliance in the Amateur Radio Service. This is the September 2024 activity report of the VM Program.

- Technician-class licensees in Indiana, South Carolina, and Mississippi received advisory notices regarding FT8 operation on 40 meters. Technicians have only CW privileges on 40 meters.
- Licensees in Alabama, Florida, Louisiana, Michigan, and New Jersey received advisory notices for excessively wide signals of 10 kHz or more. Commission Rule 97.307(a) provides that "no amateur shall occupy more bandwidth than necessary for the information rate and emission type being transmitted, in accordance with good amateur practice."
- A licensee in Florida received an advisory notice for deliberate interference to a DX station, and to operators trying to work the DX station, on 14.252 MHz. Such operation is in violation of Section 97.101 (b) of Commission rules. The operator was cautioned that FCC fines for such operation normally start at \$7,000.
- There was one general VM alert. There were two FCC referrals regarding apparent experimental high-speed stock-trading signals on amateur frequencies.
- The Program Administrator presented a program by video conference to the Wisconsin DX Club and participated in one FCC meeting.

The totals for August monitoring were 1,475 hours on HF frequencies, and 2,455 hours on VHF frequencies and above, for a total of 3,930.

Thanks to Volunteer Monitor Program Administrator Riley Hollingsworth, K4ZDH

ARRL Membership Commission Program

By Chris Prioli, AD2CS - chris@ad2cs.com - www.ad2cs.com

As some of you may already know, the ARRL has upped the ante on one of their long-standing programs, the Affiliated Club Membership Commission program. What this means to us is that we as an Affiliated Club have access to an improved revenue stream that costs us nothing but a little bit of paperwork and cooperation. The Membership Committee will handle the paperwork, but we do need the cooperation of all Club members to make this a reality.

Here is how it works. The ARRL will pay a commission to the GCARC for every new ARRL membership and for every ARRL membership renewal that is processed through the Membership Commission program. The payments are at a rate of **\$5.00** for each renewal and **\$20.00** for each new membership application submitted. This could equate to a sizable income for our Club if everyone cooperates.

All that you have to, as an existing ARRL member, is to renew your League membership via a renewal form that the GCARC Membership Committee will provide to you, completing the form and returning the form with the renewal payment to our Membership Committee. We will then bundle all of the applications received in a given month and submit them to the ARRL together with a special cover form completed by the Membership Committee. The ARRL will then send a check for the agreed commission amount to our Club. Renewals can be submitted as much as sixty days before expiration. If you are unsure of your expiration date, drop me an email and I can tell you when your ARRL membership expires.

As a tentative new member... and 33% of our membership does not currently belong to the ARRL... the process is similar. Our Membership Committee will provide you with a League membership application, which you will then complete and return to us together with your payment. We will then submit those applications together with the required cover form to the ARRL, who will again send a check for the commission to our Club.

If you are not currently an ARRL member, I strongly recommend that you join the League. The ARRL is our - Amateur Radio's - ONLY voice in Washington when it comes to lobbying for the hobby and protection of Amateur Radio against encroachment by other interests. We NEED to support the ARRL in order to protect our chosen hobby, and they are quite effective and successful in their efforts to protect and promote Amateur Radio.

Many of you will be renewing your ARRL memberships anyway, so why not do it through this program and let GCARC benefit a little bit from your renewal?



GCARC Clubhouse Rules

The following rules shall apply to all GCARC Clubhouse operations :

- All persons entering the Clubhouse are to sign-in on the Clubhouse Log and sign-out when leaving.
- No damage shall be done to the building or to any equipment housed therein or on the Clubhouse premises.
- All members are equally responsible for the maintenance of the Clubhouse and the Clubhouse premises.
- The Clubhouse shall not be left unsecured, if unattended, including the setting of the alarm system.
- No changes or modifications to the Clubhouse infrastructure or are to be made without prior approval of the Clubhouse Committee Chair.
- No gasoline or other flammable liquid fuels shall be stored on the Clubhouse site.
- No alcoholic beverages are to be present at the Clubhouse or consumed on the Clubhouse Site.
- No foodstuffs that can attract vermin are to be left unsecured in the Clubhouse, including in the Clubhouse trash containers.
- No Clubhouse equipment is to be removed from the Clubhouse without being properly accounted for and signed out.
- Personal Clubhouse access codes are not to be shared with other individuals, regardless of membership status.
 - ◊ The Clubhouse entry access codes will be changed annually upon the removal of non-renewing members from the Club Membership Roster.
- The Club is NOT responsible for any personal property left at the Clubhouse.
 - ◊ Personal property should NOT be left at the Clubhouse without prior BoD approval.
- Members must receive training before attempting to use any of the test equipment on the Test and Repair Bench. Use of test equipment is on an at-your-own-risk basis.
 - ◊ Training is available on a one-to-one basis by appointment, and is also offered at various Tech Saturday Forum sessions.
- Members must receive training on the use of the Club radio equipment before attempting to use any of the radio equipment.
- Training is available on a one-to-one basis on most Saturdays or by appointment.
- The Clubhouse Committee would appreciate it if Club members, visiting the Clubhouse, would replenish the refrigerator with water bottles and soda.
 - ◊ Water and soda are stored in the Supply Closet in the kitchen.



Regional Skywarn Websites For On-Line And In-Person Training Classes

Philadelphia/Mt Holly Skywarn : www.weather.gov/phi/skywarn

State College, PA Skywarn : www.weather.gov/ctp/skywarn

Pittsburgh, PA Skywarn : www.weather.gov/pbz/skywarn

Weather Information Nets & Frequencies

Hurricane Watch Net : www.hwn.org

- Day Time : 14.325 MHz
- Night Time : 7.268 MHz
- Information : 14.300 MHz

Local SKYWARN Frequencies :

- Atlantic County : K2BR, 146.745 MHz (-) 146.2 Hz
◊ Net Every Monday @ 1900 Hours
- Camden County : K2EOC, 146.895 MHz (-) 91.5 Hz
◊ Net Every Thursday @ 2030 Hours
- Cumberland County : KE2CK, 146.805 MHz, (-) 118.8 Hz
◊ Net Every Monday @ 1930 Hours
- Gloucester County : W2MMD, 147.180 MHz (+) 131.8 Hz
◊ Net Every Sunday @ 1930 Hours
- Salem County : N2KEJ, 146.625 MHz (-) 131.8 Hz

Straight Key Night

Every day is a good day to send CW, but January 1 is reserved for Straight Key Night. Enjoy CW as it has been sent and enjoyed since the earliest days of Amateur Radio.



Straight Key Night is held every January 1 from 0000 UTC through 2359 UTC. This 24-hour event is not a contest; rather it is a day dedicated to celebrating our CW heritage. Participants are encouraged to get on the air and simply make enjoyable, conversational CW QSOs. The use of straight keys or bugs to send CW is preferred. There are no points scored and all who participate are winners.

<http://www.arrl.org/straight-key-night>



Jersey String Band Report For January 2025

By Glenn Dougherty, N2YIO

The Theme for our 2025 Show is *The Spy That Mugged ME!*

Well by the time this goes out the New Year's Parade should be over and hopefully the Band finished higher than 14th place. If anyone would like to watch the parade since this will probably be out before New Years Day, it will be broadcast live on ME TV and also on WTMZ 69 or you can stream it on WTMZ.com starting at 9AM on New Years Day.

The String Band Portion of the parade usually starts around 2 PM and Jersey String Band will be marching 2nd and we should be on TV at the Judges Stand around 2:15PM and 2:20PM. Approximately 2 Hours after we leave the Judging Area we will be arriving back at the Woodbury Heights Firehouse where we will be playing for our family, friends, and neighbors. So if anyone would like to come out, you are more than welcome.

We will start practice for 2026 the following Wednesday evening at the Woodbury Heights Firehouse from 7:30-9:30PM. We will be taking a short rest from parading until early March. We will start our 2025 parade schedule up in New Haven, Connecticut for a St Patrick Day Parade and will also most likely submit our 2026 theme idea to the String Band Association so we can get an early start!

Well, I guess that is it for now. I'm keeping my fingers crossed! I would like to wish everyone a Happy and Healthy 2025.

Check out our YouTube channel : <https://www.youtube.com/@JerseyStringBand>

Full Wolf Moon : Sunday, January 13, 2025 @ 1727 Hours

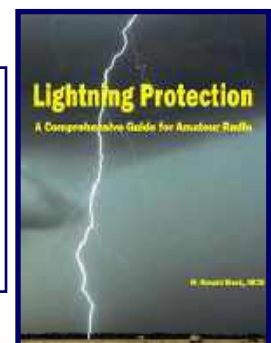


The howling of wolves was often heard at this time of year. It was traditionally thought that wolves howled due to hunger, but we now know that wolves use howls to define territory, locate pack members, reinforce social bonds, and gather for hunting. It is possible that European settlers may have used the term "Wolf Moon" even before they came to North America. Another name for this time period was the Center Moon, from the Assiniboine people, because it was the middle of the winter season. The Cree names of Cold Moon and Frost Exploding Moon refer to the frigid temperatures of this season, as does the Algonquin name of Freeze Up Moon. The Dakota names of Severe Moon and Hard Moon refer to the extreme cold and hard times of this season, as well as the fact that the snow sometimes develops a hard crust. Other names for this time include Canada Goose Moon (Tlingit), Great Moon (Cree), Greetings Moon (Western Abenaki), and Spirit Moon (Ojibwe).

Old Farmer's Almanac - www.almanac.com



Lightning Protection :
A Comprehensive Guide for Amateur Radio
Author : W. Ronald Block, NR2B
Contact : ron@wrblock.com
Website : www.wrblock.com



Another FREE Clubhouse Resource Available To All Club Members

Training May Be Required : See Jon Pearce, WB2MNF For Details

W2MMD HF Local Station



ARRL Sweepstakes Contest, CW 2024
November 2, 2024

Call : K3TS
Operator (s) : K3TS
Station : K3TS

Class : SO Unlimited HP
QTH : WPA
Operating Time (hrs) : 4:26

Summary :
Band QSOs

80 : 7
40 : 31
20 : 21
15 : 10
10 : 16

Total : 85 Section : 85
Total Score : 14,450

Club : Frankford Radio Club

113

Comments :

Not a big fan of SS, due to the long exchange, but I do like the challenge of working a Sweep, especially in only as many QSO's. This one seemed to be easier than in the past, I think because the new QTH offers much better reception due to much lower overall noise levels. It was a good test of the antennas and good code practice, if nothing else. Hope to have something up for 160m in the next couple of weeks, time and weather permitting. Thanks to all for the great participation this time out, and 73 for now.

de K3TS

Gloucester County Amateur Radio Club

General Membership Meeting Minutes

Wednesday, December 4, 2024



Meeting opened @ 1900 Hours by President Jon Pearce, WB2MNF with the Pledge of Allegiance to the Flag

ATTENDANCE :

- In-person : 38
- Via Zoom : 18

VISITORS :

- Bob Famiglio K3RF
- Ron Fish KX1W & XYL
- Tom Abernethy W3TOM (ZOOM)
- Scott McNutt N3ADP (ZOOM)

NEW MEMBERS :

- **Robert Ciotti Jr, KC3ZFT, General Class, Havertown, PA**
- **Peter L Elias Jr (father), KE2EGU, Technician Class, Vineland, NJ**
- **Peter B Elias (son), KE2EGL, Technician Class, Newport, NJ**
- **Leonard Ford, KE2DPS, Technician Class, Newport, NJ**
- **David Schwechtje Jr, Associate Member, Westville, NJ**

ANNOUNCEMENTS :

- January GM Meeting on the 8th, not the 1st.
- Holiday Dinner on 12/6 at the Mantua Masonic Lodge.

MEMBER CURRENT ACTIVITIES :

- **Karl Frank W2KBF** purchased a new manual Comet HF Antenna Tuner
- **Jim Wright N2GXJ** reported he worked VU4 on 15m long path from the Clubhouse.
- **Steve Farney W2SEF** received WAS and DXCC certificates.

BUSINESS MEETING :

- Minutes of November 2024 General Membership meeting as published in Crosstalk were approved by voice vote of members present.
- Jon WB2MNF provided a summary of Club actives and statistics for 2024.

TRESURER'S REPORT :

- 2024 YTD Income and Expense
 - ◆ Income : \$25,106.79
 - ◆ Expenses : \$20,723.43
 - ◆ Net Income : \$4,383.36

Motion to approve Treasurer's report passed by voice vote of members present.

December 2024 General Membership Meeting Minutes - Continued on page 47

GLOUCESTER COUNTY AMATEUR RADIO CLUB FOUNDATION :

- Report :
 - ◆ IT Projects : Up to amount donated and restricted for IT Projects
 - ◆ Balloon Projects : \$ 1,000
 - ◆ EME Projects : \$ 2,000

 - ◆ Income : \$16,045.49
 - ◆ Expenses : \$12,463.49
 - ◆ Net Income : \$3,582.00

CLUBHOUSE REPORT :

- Report :
 - ◆ **Al Arrison KB2AYU** reported tower base concrete has set, base plates installed. New dish was used to make successful QSOs during a recent Earth-Moon-Earth contest.

FOX HUNTS :

- Report :
 - ◆ **Jim N2GXJ** reported on recent Fox Hunt activities as well as a planned Winter Hunt tentatively scheduled for Ground Hog Day, Sunday, February 2, 2025.

DX AND CONTESTS :

- Report :
 - ◆ **Tony Starr K3TS** provided a report via Zoom of December 2024 contests, details published in CrossTalk.

PUBLIC SERVICE :

- Report :
 - ◆ **Bob Keogh KD2NEC** provided an update on the Red Cross Communications trailer.

EDUCATION COMMITTEE :

- Report :
 - ◆ **Chris Prioli AD2CS** reported the upcoming NanoVNA class had to be rescheduled for January.

OLD BUSINESS :

2025 Officer Slate

- **Frank Romeo, N3PUU : Director**
- **Jeff Garth, WB2ZBN : Director**
- **Jon Pearce, WB2MNF : President**
- **Ron Block, NR2B : Vice President**
- **John O'Connell, K2QA : Treasurer**
- **Mike Resnick N2WOQ : Corresponding Secretary**
- **John Zaruba K2ZA : Recording Secretary**
- **Earl Moore KC2NCH : Trustee**

NEW BUSINESS :

There being no opposition to the slate of candidates, and no further nominations from the floor, the Recording Secretary casts the unanimous vote for the election of the presented slate.

PRESENTATION : Q&A with ARRL Atlantic Division Director Bob Famiglio K3RF

Meeting adjourned @ 2002 Hours

Respectfully submitted,

John Zaruba K2ZA, Recording Secretary



Special thanks to all the crazy hams out there who put in the effort to get special event stations on the air each year, and then offer special QSL cards or certificates to those who make contact with them and then ask for one. Here's a recent QSL and certificate for chasing Bigfoot stations from Washington state. Love it! Any more coming up soon? Yes. In January, for example, look for W2P Jan 3-12 commemorating the battle of Princeton, right here in NJ. Then look for AG6AU Jan 25-27 to celebrate the discovery of gold in California (that's a clever callsign). In Feb we can look for W7P from the Lowell Observatory commemorating the discovery of Pluto (declared a planet at the time). Also in Feb, around President's Day weekend, we can look forward to several being on the air, including Ice Station W0JH - Frozen Minnesota Lake Portable, K4US - George Washington's Birthday at Mount Vernon, and W0H - The White House Communications Agency Amateur Radio Club Presidents Day 2025 Commemoration.

Happy hunting!
Jim Wright, N2GXJ

Gloucester County Amateur Radio Club

Board of Directors Meeting Minutes

Wednesday, December 18, 2024



Meeting opened @ 1900 Hours by President Jonathan Pearce, WB2MNF

Attendance :

- **President Jon Pearce, WB2MNF : Present**
- **Vice President Ron Block, NR2B : ZOOM**
- **Treasurer John O'Connell, K2QA : Present**
- **Recording Secretary John Zaruba Jr, K2ZA : Present**
- **Corresponding Secretary Mike Resnick, N2WOQ : ZOOM**
- **Director (2022-2024) Jeffrey Garth, WB2ZBN : ZOOM**
- **Director (2022-2024) Frank Romeo, N3PUU : Present**
- **Director (2023-2025) Chris Prioli, AD2CS : Present**
- **Director (2023-2025) James Wright, N2GXJ : Present**
- **Director (2024-2026) Al Arrison, KB2AYU : Present**
- **Director (2024-2026) Bill Price, NJ2S : Present**
- **Trustee (2021-2024) Carl Wittig, N2CRW :**
- **Trustee (2022-2025) Charles Lanard, KD2EIB :**
- **Trustee (2023-2026) Sheldon Parker, K2MEN :**
- **Trustee (2024-2027) Len Rust, W2LJR : Present**
- **Member Bob Keogh, KD2NEC : Present**
- **Member Karl Frank, W2KBF : Present**
- **Member Gary Reed, N2QEE : Present**

Motion to approve previous meeting minutes passed by voice vote of Club officers present.

New Member Applications :

- **Frank Otto Parsinitz, KD2GSY, Gibbsboro, NJ**
- **Ted Coats, ND3Q, Philadelphia, PA**
- **H. James Archer, N3ZS / 5Z4FV, Elverson, PA and Kenya**
- **José Ramon Velez Jr, KE2EUS, Vineland, NJ**
- **Peter L Elias, KE2EGU, Vineland, NJ, (Correction from November minutes)**
- **Peter B Elias, KE2EGL, Newport, NJ, (Correction from November minutes)**
- **James Bishop KE2EUD, (Upgrade from Associate to Full membership & Technician Class)**
- **Christopher Angelastro, KE2DST, (Upgrade to General Class)**

Motion to approve new members approved by voice vote of Club officers present.

Discussion of membership and renewals to date.

Treasurer's Report

- **Income : \$25,938.06**
- **Expense : \$22,067.03**
- **Net : \$3,871.03**

December 2024 Board of Directors Meeting Minutes - Continued on page 50

Detailed financial statements are available for member review upon request.

Clubhouse Report :

- **Al Arrison KB2AYU** and **Frank Romeo N3PUU** provided an update on VHF towers project, 72' tower is standing, 89' needs some modifications before raising.
- **Frank N3PUU** fabricated a mount for the EME dish.
- **Al KB2AYU** ran the Clubhouse generator for a fuel consumption test.

Programs and Activities Committee :

- **Jim Wright N2GXJ** reported that ARRL published an article about the last hunt.

Technical Committee :

- Discussion of technical projects that will be of interest of Club members.
- Discussion of Woodland School STEM program.

Education Committee :

- **Chris Prioli AD2CS** discussed "Study with a Buddy" promotion for License Classes.
- NanoVNA class has picked up additional students.
- Discussion of Education revenues / expenses.
- Motion to rebate license testing fee for students that successfully pass licensing exam. Passed by voice vote of Club officers present.

New Business :

- **Bob Keogh KD2NEC** and **Karl Frank W2KBF** discussed operating Winter Field Day as an Em-Comm exercise at the Clubhouse Site. Approved by voice vote of Club officers present.
- **John O'Connell K2QA**, **Jim N2GXJ** and **Chris AD2CS** discussed VE testing / Radio Club integration.
- General Membership Meeting location discussion.
- Discussion of potential Summer Picnic. Motion to direct budget committee to add \$400 to 2025 Club.
- Budget passed by voice vote of Club officers present.
- **Frank N3PUU** reported on 2024 Holiday Dinner, discussion of changing venue for 2025 to a restaurant or hiring a caterer.
- Discussion of allocation of Holiday Dinner surplus, sense of the Board is to add to the general fund.

Meeting adjourned @ 2055 Hours

**Respectfully Submitted,
John Zaruba K2ZA
Recording Secretary**

So you find our website confusing, can't find anything, Well So Do I!!

I have created a page (*What, Not Another Page!!*) called "Quick Links"

**On this page you will find "Buttons" to some the most popular pages
I will add more as time goes on, but I hope this helps your journey navigating
through your Club Website!**

<https://gloucestercountycastle.weebly.com/quick-links.html>

Electronic Tool Tip #12 - PCB Rotisserie Vise

By Chris Prioli, AD2CS - chris@ad2cs.com - www.ad2cs.com

When working with printed circuit boards (PCB's), especially when stuffing and soldering them, it is often much more convenient to have the board raised above the work surface, and to be able to quickly invert the board for work on its opposite surface.

This Tool Tip will showcase a tool that I like to call a “*rotisserie*” for PCB's. It is a vise that securely holds PCB's of all sizes up to eight inches in length, and of almost any width. However, the ability to completely rotate the board from its upright position to its inverted position and back again in a single direction is limited to those boards of five-and-a-half inches or less in width. This is not that great a limitation, though, as by installing a larger-width board in an offset position, it can be inverted though it cannot be completely rotated around its longitudinal axis.



The rotisserie is mostly made of aluminum and various plastics, and uses thumb screws for securement of the support risers in position on the base. The structural frame is aluminum, while the risers are plastic. The two risers are equipped with pivot-mounted board holders, one of which is spring-loaded to permit easy removal of the board from the vise without having to change the adjustment. The pivot housings are plastic, as are the board holders. The pivot posts are steel, and the pivots are locked by thumbscrews. The base is equipped with rubber feet to keep it from sliding on the work surface.

I found the original configuration to be clumsy, as it had the two base adjustment thumbscrews on opposite sides of the frame, as shown in the photo above. I modified mine by removing the non-sprung pivot from its riser and re-inserting it in the opposite direction. This permitted the reversal of the riser, putting the two base thumbscrews on the same side of the base.

This vise is available online from **Amazon**, at a price of \$13.20 (USD) plus shipping if you are not an Amazon Prime member. Of course, the government has to get its share, so tax will also be applied. Point your browser to <https://www.amazon.com/Velleman-VTHH6-VP-Circuit-Board-Clamping/dp/B06WD69MG1> if you want to investigate this item for yourself.

Supporting The Foundation Through Qualified Charitable Donations

By Jon Pearce, WB2MNF

As a Club member, you have the opportunity to make contributions to the Gloucester County Amateur Radio Foundation, a 501(c)(3) public charity, using Qualified Charitable Donations from your IRA. This option is available to those who have reached the age at which they're required to take Required Minimum Distributions from their IRAs. Making such a donation allows you to direct a designated amount of funds from your IRA to the Foundation avoiding any tax liability on the IRA withdrawal, and the donations also count as part of the RMD.

To make a donation, contact your IRA administrator and request that they make a direct transfer of funds to the foundation.

**For more information contact Club and Foundation Treasurer John O'Connell K2QA
(treasurer@w2mmd.org).**

To Be Added To The DX HONOR ROLL,
Please contact Ernest Kraus, KD2EAV
meanddelcanote@verizon.net



Thursday, January 09, 2025



Law Enforcement Appreciation Day

Name/Callsign	DXCC
Bill Grim, W0MHK	352
Dave Strout, W2YC	349
Edward De Fonzo, W2DE	339
Darrell Neron, AB2E	336
Bob Pantazes, W2ARP	290
John Hill, W2HUV	271
Vinnie Sallustio, N4NYY	271
Gary Castellini, N2IEC	270
Sheldon Parker, K2MEN	260
Jim Wright, N2GXJ	255
Ken Denson, WB2P	248
Tony Starr, K3TS	242
Dennis Sandole, K2SE	231
Howard Marder, WA2IBZ	157
Eric Morris, N2BRJ	157
Art Strong, KA0WS	154
Steve Farney, W2SEF	147
Phil Nunzio, WA3RGY	144
Rich Subers, W2RHS	140
Bart Kleczynski, AC2PT	124
Marc Federici, WM2Y	117
Ben Johnson, NE2R	116
Chuck Capasso, WB2PGE	104
Harry Strahlendorf Jr, W3DNQ	103
Jim Clark, KA2OSV	87
Lee Marino, N2LAM	71
Updated As Of 12/25/2024	

Hmm...It's Saturday and you want to know if someone is at the Clubhouse? Why not call and find out! What!!!

W2MMD Clubhouse : (856) 244-6914

(Please, no free solar panel calls!)



January Birthdays

*Congratulations To Our Members Who Are
Celebrating A Birthday This Month*

Jim Alston, AC2BY
Al Arrison, KB2AYU (President 1998, 2010, 2011)
George Badger III, W3AB
Beth Barnish, KB2EAL (President 1990)
Chris Ciraula, KD2SBR
Mark Clark, N3QMJ
John Czuba, K2AEN
Bob DeBord, N2AFK
Joe DiNovi, WA2GFK (President 1986)
Mike Dornisch, KD2IFY
Steve Farney, W2SEF
Leonard Ford, KE2DPS
Susan Frank, W6SKT
Derrick Hollis, KC3UEE
Ron Jackson, KE2CJB
Beth Kraus, KE2BPE
Ella Lee, K2BNJ
Mike Libonati, WA2ACV
Darrin Malone, KD2ALQ
Harry Maloney III, KE2ALG
Evan McCormick III, KD2NEB
John Murrow, KD2NHK
Gary Reed, N2QEE
Gregg Rudinski, KE2DRM
Len Rust III, W2LJR
Robert Shannon, KB2GTQ
Mike Thompson, KG4JYA
Dave Wade, KD2NZS
Ethan Yost, KE2AVA

In Memoriam : January Birthdays

Jesse Bieberman, W3KT
John Bokoles, W2KI
Sidney Bozarth, WB2YHX
Richard Carter, WA2OLS
Sandra Deluca, KG2MM
Howard Dodson, K2HJD
Vincent Eckert Jr
John Fahey, WB2ONY
Ernest Fox, K2JWN
Robert Gibison Sr, KB2YBQ
William Hunsinger, KB2YBQ
Louis Joseph, W2LYL
Rev. Stanley Kloskowski, WA2IPX
Miriam Kravitz, KB2EUA
Robert Layton, KB2COB
John Mullens Jr, N2WSI
Charles Naylor, W2CAN
Steven Pakyz, W2PZX
Leonard Rosen, N2LR
Emmett Ross, WA2ZND
Jack Sheppard, N2OMB
Martin Stankard Jr, WA2TZJ
Vernon Van Meter WD4IVU

Frank Van Turner, K3JM
(President 1959, Club C-Founder)

Henry Vandenberg, N2SBV
Gene Wallace Jr, N2IMK
Wayne Wood, W2SUA



**Happy
Birthday**



Frank Van Turner, K3JM
Ex. W2KE, 3JM
Club Co-Founder
President 1959
Club Charter Member

January 18, 1902 - February 1, 1977

California QSO Party 2024
October 5, 2024

Call : K3TS
Operator (s) : K3TS
Station : K3TS

Class : SO(A) HP
QTH : WPA
Operating Time (hrs) : 4
Location : Out of State/Province

Summary :

Band	CW Qs	Ph Qs
------	-------	-------

40 :	12	1
20 :	47	13
15 :	21	2
10 :	17	2

Total :	97	18	Mults : 53
Total Score :	17,331		

Club : Frankford Radio Club	103
-----------------------------	-----

Comments :

Casual effort from my new WPA QTH. Rig: Kenwood TS-590sg
Amp: ACOM 2000A @ 750W Antenna: Hustler 5BTW elevated at
20 feet. Rural hilltop location at 1600' ASL. Tower and tri-bander
should be up in a couple of weeks if all goes as planned.

73 de K3TS

Illinois QSO Party 2024
October 20, 2024

Call : WB2PJH
Operator (s) : WB2PJH
Station : WB2PJH

Class : Fixed HP
QTH :
Operating Time (hrs) : 4
Location : Out of State/Province

Summary :

Band	CW-Dig Qs	Ph Qs
------	-----------	-------

40 :	23
20 :	46
15 :	6

Total :	75	0	Mults : 43
Total Score :	6,450		

Club : Frankford Radio Club	109
-----------------------------	-----

California QSO Party 2024
October 5, 2024

Call : WB2PJH
Operator (s) : WB2PJH
Station : WB2PJH

Class : SO HP
QTH :
Operating Time (hrs) : 7
Location : Out of State/Province

Summary :

Band	CW Qs	Ph Qs
------	-------	-------

20 :	11
15 :	55
10 :	38

Total :	104	0	Mults : 41
Total Score :	12,792		

Club : Frankford Radio Club	104
-----------------------------	-----

New York QSO Party 2024
October 19, 2024

Call : NE2R
Operator (s) : NE2R
Station : NE2R

Class : SOCW LP
QTH :
Operating Time (hrs) :
Location : Out of State/Province

Summary :

Band	CW Qs	Ph Qs	Dig Qs
------	-------	-------	--------

80 :	3
40 :	55
20 :	41
15 :	0
10 :	1

Total :	100	0	0	Mults : 0
Total Score :	7,400			

108

Comments :

Conditions were good today for a nearby state QSO Party. I was
desperate to reach 100 at 40 minutes until the end of the contest
and new CW stations just weren't there on 40m, so I unscrewed
barrel on the rig end of my fan dipole coax, asked the tuner in the
TS590SG to TUNE and made 3 80 meter contacts at the end. First
80m operation in lots of decades!

Pennsylvania QSO Party 2024
October 12, 2024

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : SOMixed HP
QTH : SNJ
Operating Time (hrs) : 4
Location : Out of State/Province

Summary :

Band CW Qs Ph Qs

80 : 28 0
40 : 36 36

Total : 64 36 Mults : 50
Total Score : 8,200

Club : Frankford Radio Club 105

Comments :

Rig : K4D/KPA-1500

Antennas :

80m dipole @ 90ft

40m - Cushcraft XM-240 Yagi @ 75ft

20m,15,10m Force 12 C3SS Yagi @ 52ft

Thought I would try for a sweep, but instead worked on restoring the 160m radials for the inverted-L to be ready for CQWW SSB. Also did some other antenna work, so not much time to operate.

73 Darrell AB2E

Contest : PA QSOPARTY

Band	Mode	QSOs	Pts	Mult	Pt/Q
3.5	CW	28	56	9	2.0
7	CW	36	72	26	2.0
7	LSB	36	36	15	1.0
Total	Both	100	164	50	1.6

Score : 8,200

1 Mult = 2.0 Q's

Worked All Germany Contest 2024
October 19, 2024

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : SO Mixed HP
QTH : SNJ
Operating Time (hrs) : 3
Location : USA

Summary :

Band CW Qs SSB Qs Mults

80 : 11 0 10
40 : 25 5 23
20 : 2 0 2
15 : 1 0 1
10 : 38 15 37

Total : 77 20 73

Total Score : 21,243

Club : Frankford Radio Club 107

Comments :

Just playing a couple hours, testing the new antennas. Tree guy at QTH all Sat, so only got on a little after dark. 10m was the money band Sun AM, best QSO count & mults there.

73

Darrell AB2E

Contest : WAG

Band	Mode	QSOs	Pts	Dst	Pt/Q
3.5	CW	11	33	10	3.0
7	CW	25	75	18	3.0
7	LSB	5	15	5	3.0
14	CW	2	6	2	3.0
21	CW	1	3	1	3.0
28	CW	38	114	23	3.0
28	USB	15	45	14	3.0
Total	Both	97	291	73	3.0

Score : 21,243

1 Mult = 1.3 Q's

CQ Worldwide DX Contest, SSB 2024
October 26, 2024

Call : WB2PJH
Operator (s) : WB2PJH
Station : WB2PJH

Class : SOAB HP
QTH :
Operating Time (hrs) : 4
Location : USA

Summary :

Band QSOs Zones Countries

15 : 52 14 39
10 : 97 16 48

Total : 149 30 87

Total Score : 47,853

Club : Frankford Radio Club 111A

Announced DX Operations

www.ng3k.com/Misc/adxo.html

From The Shack of Bill Feidt, NG3K : www.ng3k.com

January						
2025 Jan01	2025 Feb08	Guyana	8R1TM	LoTW	425DXN 20241220	By PY1SAD; HF; CW SSB + digital; QSL via PY1SAD direct
2025 Jan04	2025 Jan05	Gambia	C5RK	EA7FTR	425DXN 20241220	By F4GJE; 80-10m; SSB FT8 FT4
2025 Jan05	2025 Jan12	Honduras	HR9	LoTW	TDDX 20241222	By K6VHF as K6VHF/HR9 fm Roatan I; 80-6m; SSB CW RTTY FT8; 100w; QSL via K6VHF (B/d)
2025 Jan05	2025 Jan13	Maldives	8Q7FX NEW	DO4FX (B/d)	DXW.Net 20241230	By DO4FX; 40 30 20m; FT8; holiday style operation
2025 Jan05	2025 Jan13	Maldives	8Q7XF NEW	DF3XY (B/d)	OPDX 20241230	By DF3XY; 40 30 20m; FT8; holiday style operation
2025 Jan06	2025 Jan25	Honduras	VE3VSM NEW	LoTW	OPDX 20241230	By VE3VSM as VE3VSM/HR9 fm Roatan I (IOTA NA-057); mainly 30 20m; CW FT; holiday style operation; QSL via VE3VSM8
2025 Jan09	2025 Jan26	Guadeloupe	FG NEW	LoTW	DXW.Net 20241227	By VA3QSL as FG/VA3QSL; 40-6m; SSB CW + digital; 100w; Buddipole
2025 Jan10	2025 Jan31	Benin	TY5C	LoTW	425DXN 20241220	By F5NVF; HF, perhaps 6m; CW FT8, some SSB
2025 Jan11	2025 Jan12	Senegal	6W1RD	EA7FTR	DXW.Net 20231014	By F4GJE; 80-10m; SSB FT8 FT4
2025 Jan12	2025 Jan15	American Samoa	KH8	LoTW	DXW.Net 20241210	By OE3GEA as KH8/OE3GEA; 30-10m; CW; QSL via Club Log OQRS or OE3GEA (B/d)
2025 Jan12	2025 Jan27	Marquesas	TX7N	LoTW	TDDX 20240902	By F6BCW F5SDD + 12 op team fm Hiva Oa I; 160-6m; 5 stations; 24hrs/7 days; QSL via Club Log OQRS
2025 Jan12	2025 Jan31	Curacao	PJ2 NEW	LoTW	DXW.Net 20241230	By W2APF as PJ2/W2APF; 80-10m; CW SSB FT8; QSL via W2APF; operation to continue until Apr 8
2025 Jan18	2025 Jan28	Aruba	P40AA	Club Log OQRS	DL4MM 20241208	By DL4MM; 160-10m; CW FT8 SSB; QRV in CQ 160m CW Contest
2025 Jan19	2025 Jan27	Martinique	FM	EB7DX	DXW.Net 20231216	By F4IFF as FM/F4IFF fm IOTA NA-107; HF; SSB + digital
2025 Jan21	2025 Feb03	St Helena	ZD7DPX	IK2DUW	DXW.Net 20241221	By IZ2DPX; @ZD7CTO; 160-6m; SSB FT8 FT4; QSL via Club Log OQRS
2025 Jan23	2025 Jan26	Turks & Caicos	VP5	LoTW	DXW.Net 20241210	By OE3GEA as VP5/OE3GEA fm Providenciales I (IOTA NA-002); 30-10m; CW; QSL via Club Log OQRS or OE3GEA (B/d)
2025 Jan27	2025 Feb15	Rwanda	9X2AW	LoTW	DXW.Net 20241223	By DF2WO fm KI48xb; 160-10m; CW FT4 SSB; QSL M0OXO OQRS
2025 Jan28	2025 Feb02	Turks & Caicos	VP5	LoTW	TDDX 20241222	By KD8RTT as VP5/KD8RTT fm Providenciales I; HF; QSL via KD8RTT direct

Also for your convenience, there is a direct link to NG3K on our website. Click on the NG3K DX Page.

January 2025 Contest Calendar - WA7BNM Contest Calendar : www.contestcalendar.com

+ AGB New Year Snowball Contest	0000Z-0100Z, Jan 1
+ QRP Fox Hunt	0200Z-0330Z, Jan 1
+ Phone Weekly Test	0230Z-0300Z, Jan 1
+ SARTG New Year RTTY Contest	0800Z-1100Z, Jan 1
+ AGCW Happy New Year Contest	0900Z-1200Z, Jan 1
+ A1Club AWT	1200Z-1300Z, Jan 1
+ CWops Test (CWT)	1300Z-1400Z, Jan 1
+ AGCW VHF/UHF Contest	1400Z-1700Z, Jan 1 (144) and 1700Z-1800Z, Jan 1 (432)
+ Mini-Test 40	1700Z-1759Z, Jan 1
+ VHF-UHF FT8 Activity Contest	1700Z-2100Z, Jan 1
+ Mini-Test 80	1800Z-1859Z, Jan 1
+ CWops Test (CWT)	1900Z-2000Z, Jan 1
+ UKEICC 80m Contest	2000Z-2100Z, Jan 1
+ Walk for the Bacon QRP Contest	0000Z-0100Z, Jan 2 and 0200Z-0300Z, Jan 3
+ CWops Test (CWT)	0300Z-0400Z, Jan 2
+ CWops Test (CWT)	0700Z-0800Z, Jan 2
+ NRAU 10m Activity Contest	1800Z-1900Z, Jan 2 (CW) and 1900Z-2000Z, Jan 2 (SSB) and 2000Z-2100Z, Jan 2 (FM) and 2100Z-2200Z, Jan 2 (Dig)
+ SKCC Sprint Europe	2000Z-2200Z, Jan 2
+ NCCC FT4 Sprint	0100Z-0130Z, Jan 3
+ Weekly RTTY Test	0145Z-0215Z, Jan 3
+ QRP Fox Hunt	0200Z-0330Z, Jan 3
+ NCCC Sprint	0230Z-0300Z, Jan 3
+ K1USN Slow Speed Test	2000Z-2100Z, Jan 3
+ PODXS 070 Club PSKFest	0000Z-2400Z, Jan 4
+ Marconi Club ARI Loano QSO Party Day	0700Z-2100Z, Jan 4
+ WW PMC Contest	1200Z, Jan 4 to 1200Z, Jan 5
+ RSGB AFS Contest, CW	1300Z-1700Z, Jan 4
+ ARRL RTTY Roundup	1800Z, Jan 4 to 2400Z, Jan 5
+ ARRL Kids Day	1800Z-2359Z, Jan 4
+ EUCW 160m Contest	2000Z-2300Z, Jan 4 and 0400Z-0700Z, Jan 5
+ K1USN Slow Speed Test	0000Z-0100Z, Jan 6
+ ICWC Medium Speed Test	1300Z-1400Z, Jan 6
+ OK1WC Memorial (MWC)	1630Z-1729Z, Jan 6
+ ICWC Medium Speed Test	1900Z-2000Z, Jan 6
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Jan 7
+ ARS Spartan Sprint	0100Z-0300Z, Jan 7
+ ICWC Medium Speed Test	0300Z-0400Z, Jan 7
+ QRP Fox Hunt	0200Z-0330Z, Jan 8
+ Phone Weekly Test	0230Z-0300Z, Jan 8
+ A1Club AWT	1200Z-1300Z, Jan 8
+ CWops Test (CWT)	1300Z-1400Z, Jan 8
+ VHF-UHF FT8 Activity Contest	1700Z-2100Z, Jan 8
+ Mini-Test 40	1700Z-1759Z, Jan 8
+ Mini-Test 80	1800Z-1859Z, Jan 8
+ CWops Test (CWT)	1900Z-2000Z, Jan 8
+ CWops Test (CWT)	0300Z-0400Z, Jan 9
+ CWops Test (CWT)	0700Z-0800Z, Jan 9
+ NCCC FT4 Sprint	0100Z-0130Z, Jan 10
+ Weekly RTTY Test	0145Z-0215Z, Jan 10
+ QRP Fox Hunt	0200Z-0330Z, Jan 10
+ NCCC Sprint	0230Z-0300Z, Jan 10
+ K1USN Slow Speed Test	2000Z-2100Z, Jan 10
+ YB DX Contest	Cancelled for 2025
+ Old New Year Contest	0500Z-0859Z, Jan 11
+ UBA PSK63 Prefix Contest	1200Z, Jan 11 to 1200Z, Jan 12
+ SKCC Weekend Sprintathon	1200Z, Jan 11 to 2400Z, Jan 12
+ North American QSO Party, CW	1800Z, Jan 11 to 0559Z, Jan 12
+ NRAU-Baltic Contest, SSB	0630Z-0830Z, Jan 12
+ DARC 10-Meter Contest	0900Z-1059Z, Jan 12
+ NRAU-Baltic Contest, CW	0900Z-1100Z, Jan 12
+ RSGB AFS Contest, Data	1300Z-1700Z, Jan 12
+ K1USN Slow Speed Test	0000Z-0100Z, Jan 13
+ 4 States QRP Group Second Sunday Sprint	0100Z-0300Z, Jan 13
+ ICWC Medium Speed Test	1300Z-1400Z, Jan 13
+ OK1WC Memorial (MWC)	1630Z-1729Z, Jan 13
+ ICWC Medium Speed Test	1900Z-2000Z, Jan 13
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Jan 14
+ ICWC Medium Speed Test	0300Z-0400Z, Jan 14
+ DARC RTTY Sprint	1800Z-1929Z, Jan 14
+ QRP Fox Hunt	0200Z-0330Z, Jan 15
+ Phone Weekly Test	0230Z-0300Z, Jan 15
+ A1Club AWT	1200Z-1300Z, Jan 15
+ CWops Test (CWT)	1300Z-1400Z, Jan 15

January 2025 Contest Calendar - Continued on page 58

January 2025 Contest Calendar - WA7BNM Contest Calendar : www.contestcalendar.com

January 2025 Contest Calendar - Continued from page 57

+ Mini-Test 40	1700Z-1759Z, Jan 15
+ VHF-UHF FT8 Activity Contest	1700Z-2100Z, Jan 15
+ Mini-Test 80	1800Z-1859Z, Jan 15
+ CWops Test (CWT)	1900Z-2000Z, Jan 15
+ AWA Linc Cundall Memorial CW Contest	2300Z, Jan 15 to 2300Z, Jan 16 and 2300Z, Jan 18 to 2300Z, Jan 19
+ Walk for the Bacon QRP Contest	0000Z-0100Z, Jan 16 and 0200Z-0300Z, Jan 17
+ NAQCC CW Sprint	0130Z-0330Z, Jan 16
+ CWops Test (CWT)	0300Z-0400Z, Jan 16
+ CWops Test (CWT)	0700Z-0800Z, Jan 16
+ NTC QSO Party	1900Z-2000Z, Jan 16
+ NCCC FT4 Sprint	0100Z-0130Z, Jan 17
+ Weekly RTTY Test	0145Z-0215Z, Jan 17
+ QRP Fox Hunt	0200Z-0330Z, Jan 17
+ NCCC Sprint	0230Z-0300Z, Jan 17
+ K1USN Slow Speed Test	2000Z-2100Z, Jan 17
+ PRO Digi Contest	1200Z, Jan 18 to 1159Z, Jan 19
+ Hungarian DX Contest	1200Z, Jan 18 to 1159Z, Jan 19
+ RSGB AFS Contest, SSB	1300Z-1700Z, Jan 18
+ NA Collegiate Championship, SSB	1800Z, Jan 18 to 0559Z, Jan 19
+ North American QSO Party, SSB	1800Z, Jan 18 to 0559Z, Jan 19
+ ARRL January VHF Contest	1900Z, Jan 18 to 0359Z, Jan 20
+ Feld Hell Sprint	2000Z, Jan 18 to 0559Z, Jan 19
+ Run for the Bacon QRP Contest	2300Z, Jan 19 to 0100Z, Jan 20
+ K1USN Slow Speed Test	0000Z-0100Z, Jan 20
+ ICWC Medium Speed Test	1300Z-1400Z, Jan 20
+ OK1WC Memorial (MWC)	1630Z-1729Z, Jan 20
+ ICWC Medium Speed Test	1900Z-2000Z, Jan 20
+ RSGB FT4 Contest	2000Z-2200Z, Jan 20
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Jan 21
+ ICWC Medium Speed Test	0300Z-0400Z, Jan 21
+ SKCC Sprint	0000Z-0200Z, Jan 22
+ QRP Fox Hunt	0200Z-0330Z, Jan 22
+ Phone Weekly Test	0230Z-0300Z, Jan 22
+ A1Club AWT	1200Z-1300Z, Jan 22
+ CWops Test (CWT)	1300Z-1400Z, Jan 22
+ Mini-Test 40	1700Z-1759Z, Jan 22
+ Mini-Test 80	1800Z-1859Z, Jan 22
+ CWops Test (CWT)	1900Z-2000Z, Jan 22
+ NAQCC CW Sprint	0130Z-0330Z, Jan 23
+ CWops Test (CWT)	0300Z-0400Z, Jan 23
+ CWops Test (CWT)	0700Z-0800Z, Jan 23
+ NCCC FT4 Sprint	0100Z-0130Z, Jan 24
+ Weekly RTTY Test	0145Z-0215Z, Jan 24
+ QRP Fox Hunt	0200Z-0330Z, Jan 24
+ NCCC Sprint	0230Z-0300Z, Jan 24
+ K1USN Slow Speed Test	2000Z-2100Z, Jan 24
+ CQ 160-Meter Contest, CW	2200Z, Jan 24 to 2200Z, Jan 26
+ REF Contest, CW	0600Z, Jan 25 to 1800Z, Jan 26
+ BARTG RTTY Sprint	1200Z, Jan 25 to 1200Z, Jan 26
+ UBA DX Contest, SSB	1300Z, Jan 25 to 1300Z, Jan 26
+ Winter Field Day	1600Z, Jan 25 to 2159Z, Jan 26
+ Australia Day Contest	2200Z, Jan 25 to 1000Z, Jan 26
+ K1USN Slow Speed Test	0000Z-0100Z, Jan 27
+ ICWC Medium Speed Test	1300Z-1400Z, Jan 27
+ QCX Challenge	1300Z-1400Z, Jan 27
+ OK1WC Memorial (MWC)	1630Z-1729Z, Jan 27
+ ICWC Medium Speed Test	1900Z-2000Z, Jan 27
+ QCX Challenge	1900Z-2000Z, Jan 27
+ Worldwide Sideband Activity Contest	0100Z-0159Z, Jan 28
+ ICWC Medium Speed Test	0300Z-0400Z, Jan 28
+ QCX Challenge	0300Z-0400Z, Jan 28
+ QRP Fox Hunt	0200Z-0330Z, Jan 29
+ Phone Weekly Test	0230Z-0300Z, Jan 29
+ A1Club AWT	1200Z-1300Z, Jan 29
+ CWops Test (CWT)	1300Z-1400Z, Jan 29
+ Mini-Test 40	1700Z-1759Z, Jan 29
+ Mini-Test 80	1800Z-1859Z, Jan 29
+ CWops Test (CWT)	1900Z-2000Z, Jan 29
+ UKEICC 80m Contest	2000Z-2100Z, Jan 29
+ CWops Test (CWT)	0300Z-0400Z, Jan 30
+ CWops Test (CWT)	0700Z-0800Z, Jan 30
+ NCCC FT4 Sprint	0100Z-0130Z, Jan 31
+ Weekly RTTY Test	0145Z-0215Z, Jan 31
+ QRP Fox Hunt	0200Z-0330Z, Jan 31
+ NCCC Sprint	0230Z-0300Z, Jan 31
+ K1USN Slow Speed Test	2000Z-2100Z, Jan 31

2025 Club Committees

Standing Committees

Budget
 Constitution & By-Laws
 Education
 Field Day
 Hamfest
 Health, Welfare, & Silent Keys
 Hospitality
License Testing/VEC Liaison
 Membership & Membership Badges
 Nominations
 Publicity
Repeaters
 W2MMD Clubhouse Site

Committee Chairs

John O'Connell, K2QA
 Ron Block, NR2B
 Chris Prioli, AD2CS
 Tony Starr, K3TS
 Sheldon Parker, K2MEN and Bill Price, NJ2S
 Bill Price, NJ2S
 Jeff Garth, WB2ZBN
Chris Prioli, AD2CS
 Chris Prioli, AD2CS
 Jon Pearce, WB2MNF
 Mike Resnick, N2WOQ
Open Chair
 Al Arrison, KB2AYU

Activity Committees

Awards & Certificates
 Club Photographer
 Club Publications & Historian
 Contests
 GCARC Foxhunts
 GC-ARES Emergency Coordinator
 Holiday Dinner Party
 Membership Roster Database
 Programs : General Membership Meetings
Radio Nets
 Technical (Tech Saturday, TechNets)
 W2MMD License Trustee
 W2MMD Special Event Station

Committee Chairs

GCARC Board of Directors
 Phil Nunzio, WA3RGY
 Jeff Garth, WB2ZBN
 Tony Starr, K3TS
 Jim Wright, N2GXJ
 Bob Keogh, KD2NEC
 Frank Romeo, N3PUU & Kathy Romeo
 Jeff Garth, WB2ZBN
 Ron Block, NR2B
Open Chair
 Jon Pearce, WB2MNF
 Darrell Neron, AB2E
 Mark Gottlieb, KK2L

GCARC <at> Mailman <dot> QTH <dot> Net e-mail reflector guidelines

1. **No attachments** (e.g. pictures, files) are allowed on the reflector.
2. If you have Club-related pictures that you would like to share, you can send them to the webmaster, he will put them on the website and will send out a general e-mail to all the members.
3. Otherwise, the pictures will have to be sent to the members' addresses.
4. URLs/Hyperlinks are acceptable on the reflector.
5. Do not send any messages with e-mail addresses in the **BCC (Blind Carbon Copy)** field. The message will be rejected. Use only the **To:** or **CC:** fields.
6. Members are subscribed to the reflector using the member's e-mail address from the roster database. You must use that address when sending an e-mail via the reflector.
7. If you use another address on the reflector, the message will get rejected or "*bounced*", because the reflector does not recognize that address. Whenever a message sent to reflector is rejected or "*bounced*" for various reasons, the administrator has to log-in to the Mailman.QTH website and approve the message.

The W2MMD Repeaters

2 Meter Repeater

Output : 147.180 MHz

Input : 147.780 MHz

Offset : +600 kHz - PL : 131.8 Hz

(Conventional FM plus C4FM Capability)

EchoLink : W2MMD-R

70 cm Repeater

Output : 442.100 MHz

Input : 447.100 MHz

Offset : +5 MHz - PL : 131.8 Hz

(Conventional FM plus C4FM Capability)

The above repeaters are both

located in Pitman, NJ

GPS : 39.728481°, -75.131088°

1.25 Meter Repeater

Output : 224.660 MHz

Input : 223.060 MHz

Offset : -1.6 MHz - PL : 131.8 Hz

Location : Sewell, NJ

GPS : 39.746738°, -75.077094°

SKYWARN™ Net

Sunday @ 1930 : 147.180 MHz Repeater

Gloucester County ARES Net

Sunday @ 2000 : 147.180 MHz Repeater

GCARC TechNet ZOOM Forum

Available Every Monday @ 1930 Hours

Join ZOOM Meeting Link :

<https://bit.ly/3K8bWwj>

Tuesday Afternoon 2M Net @ 1200 Hours

Tuesday & Thursday 10 Meter Net @ 1930 Hours
28.465 MHz or 28.475 MHz

Monday & Thursday Night 40M Net
1930 Hours

7.225 MHz (+/- 5 or 10 kHz)

Thursday 2M Net @ 2000 Hours

Meeting Calendar

General Membership Meeting

Wednesday, January 8, 2025

1900 Hours

Pfeiffer Community Center

Simulcast Live on ZOOM

Meeting ID : 943 0211 9674

Passcode : 843147

Join ZOOM Meeting Link :

<https://bit.ly/44P4HCU>

Board of Directors Meeting

Wednesday, January 15, 2025

1900 Hours

W2MMD Clubhouse

*“There’s More To Ham Radio Than
You Can Possibly Do!”*

- K3TS

*“The big thing about being in a club and
being a “Ham” is to help each other
when there is a need ”*

- W2SEF

*** Badges ***

Need a new or replacement badge
Contact “The Badge Man”

Chris Prioli, AD2CS
chris@ad2cs.com

Question Pool Answers : E2A01:C; E2A02:D; E2A03:D; E2A04:B; E2A05:D; E2A06:A; E2A07:D; E2A08:B;
E2A09:A; E2A10:B; E2A11:B; E2A12:C